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REPORT

TOGETHER WITH

SEPARATE AND INDIVIDUAL VIEWS

[To accompany H.R. 9286]

ON

AUTHORIZING APPROPRIATIONS FOR FISCAL YEAR 1974 FOR MILITARY PROCUREMENT, RESEARCH AND DEVELOPMENT, CONSTRUCTION AUTHORIZATION FOR THE SAFEGUARD ABM, AND ACTIVE DUTY AND SELECTED RESERVE STRENGTH, AND FOR OTHER PURPOSES

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

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AUTHORIZING APPROPRIATIONS FOR FISCAL YEAR 1974 FOR MILITARY PROCUREMENT, RESEARCH AND DEVELOPMENT, AND ACTIVE DUTY AND SELECTED RESERVE STRENGTHS, AND FOR OTHER PURPOSES

Mr. Symington, from the Committee on Armed Services, submitted the following

REPORT

The Committee on Armed Services, to which was referred the bill (H.R. 9286) to authorize appropriations during the fiscal year 1974 for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons, and research, development, test, and evaluation for the Armed Forces, and to prescribe the authorized personnel strength for each active duty component and of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes, having considered the same, reports favorably thereon with an amendment and recommends that the bill as amended do pass.

COMMITTEE AMENDMENT IN THE FORM OF A SUBSTITUTE

The committee amended the bill by striking all after the enacting clause and substituting a new bill reflecting changes in this bill as recommended by the Senate Armed Services Committee.

This Senate report refers to the changes in the House bill for informational purposes only.

The House passed this legislation on July 31, 1973, at a time when this committee was in the process of completing its actions on this legislation. The Senate Committee on Armed Services voted to report out this legislation on August 3, 1973. All differences in the bill as passed by the House from the version as finally passed by the Senate will, of course, be considered in conference.

PURPOSE OF THE BILL

This bill would:

(1) Authorize appropriations during fiscal year 1974 for (a) major procurement and (b) research, development, test, and evaluation by the Department of Defense;

(2) Continue for fiscal year 1974 the authority for merging military assistance financing for South Vietnam and other free world forces in support of the South Vietnam effort and for local forces in Laos, with funding of the Department of Defense;

(3) Authorize the personnel end strength for each active duty component of the Armed Forces for fiscal year 1974;

(4) Authorize the annual average military training student load for each of the active and reserve components of the Armed Forces for fiscal year 1974;

(5) Authorize the personnel strengths for fiscal year 1974 for the Selected Reserve of each of the Reserve components of the Armed Forces;

(6) Impose certain limitations with regard to specific procurement actions, provide certain additional legislative authority, and for other purposes.

PERCENTAGE REDUCTIONS

Percentage Reduction Overall—6.9% From Request

The committee recommends authorization of appropriations in the amount of $20,447,968,000, a net reduction of $1,511,132,000 from the request of $21,959,100,000. This is a 6.9 percent reduction from the request as follows:

[In millions of dollars]

	Request	Senate committee recommendation	Difference	Percent reduction of request
Procurement	13,401.2	12,388.2	−1,013.0	7.6
R.D.T. & E	8,557.9	8,059.7	−498.2	5.8
Total	21,959.1	20,448.0	−1,511.1	−6.9

House Action

For information, the committee recommendation of $20.4 billion is $2.7 million above the authorization as passed by the House. Only those changes that were proposed by the House Armed Services Committee have been identified in the charts in this report. Those changes reflect a net reduction of $564.1 million. The total reduction in authorizations made by the House, however, is $1.5 billion as a result of a House floor amendment in the form of an authorization ceiling. There is, therefore, an additional reduction in the amount of $949.7 million which is not identified by line item.

SUMMARY OF TOTAL FISCAL YEAR 1974 AUTHORIZATION REQUEST

The President's Budget message of January 29, 1973 recommended $85.2 billion in new obligational authority for the budget of the Department of Defense. Of this amount, $21,959.1 million required authorization in this bill prior condition for appropriations.

The committee would observe that even though the fiscal year 1974 recommended defense budget authority of $85.2 billion is $1.8 billion more than the fiscal year 1973 President's budget request, the fiscal year 1974 authorization request for military procurement and research and development is $1.3 billion less than the total request considered by the committee for fiscal year 1973.

Defense outlays (Department of Defense-Military plus Military Assistance) are expected to increase from $74.8 billion in fiscal year 1973 to $79.0 billion in fiscal year 1974. This increase, however, is related primarily to maintaining military and civilian pay levels comparable to those in the private sector, to raising pay and benefit levels sufficient to achieve an All-Volunteer Force, to paying normal price increases, and to paying increasing military retired pay costs. As can be seen by the comparison of amounts for weapons systems, the increases in 1974 are not attributable to the cost of modernizing our military forces.

Department of Defense Fiscal Year 1974 Authorization Bill—Summary by Major Weapon Category

Army, Navy, Air Force and Defense Agencies

[In thousands of dollars]

	Total amount of fiscal year 1974 program	Less available financing	Appropriation requiring authorization	House	Senate	
				Authorized	Change from request	Recommended
Aircraft	6,052,100		6,052,100	5,878,400	−528,465	5,532,635
Missiles	2,885,600		2,885,600	2,859,900	−132,200	2,753,400
Naval vessels	3,901,800		3,901,800	3,788,200	−273,100	3,628,700
Tracked combat vehicles	247,900		247,900	239,500	−41,400	206,500
Torpedoes	219,900		219,900	219,900	−16,600	203,300
Other weapons	93,900		93,900	87,300	−21,200	72,700
Procurement total	13,401,200		13,401,200	13,073,200	−1,012,965	12,388,235
R.D.T. & E.[1]	8,557,900		8,557,900	8,321,797	−498,167	8,059 733
Undistributed reduction				−949,742		
Grand total	21,959,100		21,959,100	20,445,255	−1,511,132	20,447,968

[1] Includes $2,600,000 for Special Foreign Currency program for Navy.

DEPARTMENT OF DEFENSE FISCAL YEAR 1974 AUTHORIZATION BILL

[In thousands of dollars]

Procurement	Authorized 1973	Appropriated 1973	New obligational authority requested 1974	House, authorized	Senate: Change from request	Senate: Recommended
Aircraft:						
Army	133,800	33,500	181,000	181,000	−13,000	168,000
Navy and Marine Corps	3,207,800	2,822,500	2,958,300	2,958,300	−567,300	2,391,000
Air Force	2,681,400	2,239,300	2,912,800	2,739,100	+51,835	2,964,635
Subtotal	6,023,000	5,094,900	6,052,100	5,878,400	−528,465	5,523,635
Missiles:						
Army	704,700	668,200	599,900	574,200	−39,200	560,700
Navy	834,900	719,240	680,200	680,200	−29,500	650,700
Marine Corps	22,100	22,100	32,300	32,300		32,300
Air Force	1,785,100	1,670,000	1,573,200	1,573,200	−63,500	1,509,700
Subtotal	3,346,800	3,079,540	2,885,600	2,859,900	−132,200	2,753,400
Naval vessels: Navy	3,179,200	2,970,600	3,901,800	3,788,200	−273,100	3,628,700
Tracked combat vehicles:						
Army	186,500	130,500	201,700	193,300	−41,400	160,300
Marine Corps	54,500	54,500	46,200	46,200		46,200
Subtotal	241,000	185,000	247,900	239,500	−41,400	206,500
Torpedoes: Navy	194,200	192,600	219,900	219,900	−16,600	203,300
Other weapons:						
Army	61,400	56,400	51,300	44,700	−12,400	38,900
Navy	25,700	25,700	41,900	41,900	−8,800	33,100
Marine Corps	900	900	700	700		700
Subtotal	88,000	82,900	93,900	87,300	−21,200	72,700
Total procurement	[1] **13,072,200**	**11,605,140**	**13,401,200**	**13,073,200**	**−1,012,965**	**12,388,235**
Research, development, test and evaluation:						
Army	1,978,966	1,829,932	2,108,700	2,031,686	−172,767	1,935,933
Navy (including Marine Corps)[2]	2,708,817	2,548,313	2,711,700	2,675,300	−55,500	2,656,200
Air Force	3,272,777	3,122,940	3,212,500	3,110,811	−254,300	2,958,200
Defense agencies	505,987	435,313	500,400	479,400	−15,060	484,800
Test and evaluation, Defense		27,900	24,600	24,600		24,600
Emergency fund	50,000					
Total, R.D.T. & E.[3]	8,516,547	7,962,198	8,557,900	8,321,797	−498,167	8,059,733
Undistributed reduction				−949,742		
Grand total procurement and R.D.T. & E.	[1] **21,588,747**	**19,567,338**	**21,959,100**	**20,445,255**	**−1,511,132**	**20,447,968**

[2] Includes $644,900,000 additional authorization in section 801 of Public Law 92-570.
[3] Includes $3,000,000 for Special Foreign Currency Program for Navy under R.D.T. & E. appropriation for fiscal year 1973 and $2,600,000 requested for fiscal year 1974.

MAJOR CHANGES BY SENATE COMMITTEE

This report discusses in detail all of the various changes recommended by the committee on all aspects of the bill. The following is a list of the more significant changes being recommended by the committee.

Major Funding Changes—From Request

Addition of procurement funding for Air Force F–111 aircraft

Addition of $158.8 million for full funding of 12 F–111F tactical fighters.

Addition of procurement funds for Air Force A–7D attack aircraft

Inclusion of $70.1 million for procurement of 24 A–7D aircraft.

Addition of R&D funds for Air Force two-seat version of F–5E aircraft

Inclusion of $14 million to initiate development and test of prototype aircraft.

Deletion of procurement funds for F–14A Navy fighter and F–4J fighter

Denial of authorization of 48 F–14 aircraft and 10 F–4J aircraft resulting in a reduction of $505.4 million. $197.6 million is recommended to continue F–14A program pending resolution of contract and schedule problems.

Reduction of funds requested for cost escalation in Navy shipbuilding programs

Reduction of $94.6 million (from $196.7 million to $102.1 million) for estimated increases for escalation in prior year Navy shipbuilding and conversion programs.

Reduction in funds for A–10 (A–X) Air Force aircraft

Reduction of $50 million ($20 million in R&D and $30 million in procurement) for Air Force A–X program. Total request was for $112.4 million in R&D and $30 million in procurement.

Reduction in R&D funds for Air Force B–1 development

Reduction of $100 million from $473.5 million requested because of dissatisfaction with delay in schedule and increased program costs.

Reduction in Minuteman III program

Reduction of $45.8 million for procurement of Minuteman III missiles. The total procurement request was for $674.4 million.

Reduction in Safeguard program

Reduction of $42 million ($16.3 million in R&D and $25.7 million in procurement) for Safeguard program. The total request for these two areas was $401.0 million.

Denial of funds for Air Force Subsonic Cruise Armed Decoy (SCAD)

$72.2 million of R&D funds deleted and program reoriented to technology.

Denial of funds for Navy Strategic Cruise Missile (SCM)

Deleted $15.2 million of R&D funds requested and program reoriented to technology.

Reduction of Air Force F–5A Military Assistance Service-Funded (MASF) aircraft

Reduction of $41 million from request of $69.3 million for the F–5A Military Assistance Program payback.

Reduction in UH–1H utility helicopter program

Reduction of 128 helicopters and $40.2 million from request of 308 helicopters at $96.7 million.

Reduction in Poseidon program

Reduction of $35.6 million for procurement of Poseidon missiles and $113.6 million for conversion of three Polaris ballistic missile submarines to the Poseidon configuration.

Reduction in funds for guided missile frigate conversions

Reduction of $35.6 million in request of $93.7 million for conversion of two guided missile frigates.

Reduction in Air Force aircraft modification program

Reduction of $35.5 million (from $527.7 million to $492.2 million) related to B–52 and operational necessity modifications.

Reduction in Army M60A1 tank program

Deletion of funding in the amount of $33 million for 120 M60A1 tanks. The total request was for 360 tanks at a total cost of $99.4 million. An additional $8.4 million reduction was made in the request of $26.6 million for advanced procurement. The sum remaining in the bill for this program is $84.6 million.

Denial of funds for Sea Control Ship

Deletion of $29.3 million requested in procurement for design and long lead funds for Sea Control Ship.

Denial of funds for Navy T–2C trainer aircraft

Deletion of 24 aircraft and $26.1 million.

Reduction in Army Site Defense program

Reduction of $70 million from request for $170 million because development should proceed at a slower pace.

Denial of funds for Army Light Area Defense program

Deletion of $42.4 million requested and direction that program be terminated as not required.

Reduction of funds requested for AWACS development

Reduction of $42 million excess to requirements due to revised program. Leaves $155.8 million in the bill for R&D, and $11.7 million for long lead procurement.

Language Changes

The committee added the following specific statutory provisions to the bill:

Statutory language on F–14

Specific provision limiting authorization of funding for Navy F–14 aircraft to $197.6 million to fund the program through December 31, 1973.

C–5A

Statutory language identical to that contained in the fiscal year 1973 act was adopted which is intended to insure that funds authorized for the C–5A be limited to the cost of that program.

Fiscal Year 1974 Southeast Asia Limitation

Language similar to prior years was included establishing a ceiling for Southeast Asia Free World Forces of $952 million.

Safeguard Anti-Ballistic Missile System

Language was added which limits deployment of this system to only Grand Forks Air Force Air Base.

Statutory language on Navy Surface Effect Ships program

The addition of statutory language which authorizes $60.9 million of development funds only for the Surface Effect Ships program.

DOD Civilian Manpower

An amendment requiring annual authorization of civilian manpower for the Department of Defense was included.

Manpower Stationed Overseas

An amendment requiring a more complete explanation and justification of manpower stationed outside the United States was included in the annual Military Manpower Requirements Report.

Training Loads

An amendment deleting the requirement to authorize training loads separate from and in addition to authorizing manpower levels was included.

Support and Overhead Manpower

An amendment was added requiring the justification of support and overhead manpower authorizations to be related to the combat forces and support policies.

Exclusion of Reserves from Active Duty Strength

An amendment making permanent law the provision that excludes members of the Ready Reserve and National Guard ordered to federal active duty from the authorized active duty strength and requiring a report from the President on any units of the Ready Reserve ordered to active duty in the annual Military Manpower Requirements Report. The effect of this language is to require that the Selected Reserves be utilized by the President before expanding the active duty strengths through means of Selective Service.

Changes to Manpower Authorizations

The Committee recommended the following changes to the requests for active duty end strength and prescribed that the Secretary of Defense shall apportion the reductions among the Services and mission areas with the proviso that it be applied to the support forces to the maximum extent practicable:

Active duty end strength	*Number*
DOD request	2, 232, 902
Committee reduction	—156, 100
Committee recommendation	2, 076, 802

In addition the Committee recommended the following changes to the annual average strength authorization for Reserve Components:

SELECTED RESERVES

	DOD request	Committee recommendation
Army National Guard	379, 144	379, 144
Army Reserve	232, 591	232, 591
Naval Reserve	116, 981	121, 481
Marine Corps Reserve	39, 735	39, 735
Air National Guard	92, 291	92, 291
Air Force Reserve	49, 773	49, 773
Total DOD	910, 515	915, 015
Coast Guard Reserve	11, 300	11, 300

Contributions of Subcommittees on Tactical Air Power and Research and Development

Vital assistance was rendered the committee by the significant contributions of the Tactical Air Power Subcommittee and Research and Development Subcommittee. The Subcommittees held in-depth hearings on the subjects within their purviews and their recommendations were of great assistance to the full committee.

OBSERVATIONS RELATIVE TO BILL

Basic Considerations

The committee's consideration of the annual defense authorization bill this year has been colored by three important, and sometimes conflicting, considerations.

First of all, economic conditions in the United States are not stable. The sharpest inflation in recent history, extraordinarily high interest rates, recent devaluations of the dollar, and the importance of competing domestic needs, all dictate prudence in defense spending. It is particularly important this year that no waste be permitted in the Defense budget. Over the long run, a sound economy is as important to national security as conventional measures of military might.

A second major consideration, which supports the first, is the end of American involvement in the war in Southeast Asia. The American people expect that the coming of peace will bring some dividends in reduced requirements for military expenditures.

A third consideration, however, provides an important check on the first two. After both World War I and World War II, a war-weary America sharply reduced defense spending. The lack of national resolve which was thereby indicated eventually contributed to bringing on, and prolonging, the wars that followed. This must not happen again. Even in a period of détente, the growth of technology has made the world a much more dangerous place than it was either between the world wars or between World War II and Korea.

For most of our modern history, public and Congressional support for defense has been sporadic. The swings of the pendulum have been extreme, and at neither extreme has the Nation's defense been well served. From the perspective of history we can see that we have gone through periods of feast for defense spending when we have spent money unnecessarily, and we have also gone through famines in which we have been dangerously unprepared. Defense is the Nation's most important job. For without being able to defend ourselves successfully, neither the economic bounty nor the political liberty which we treasure is possible. But, to avoid both waste and danger, some means must be found to dampen the swings of the defense pendulum and to maintain a prudent and adequate level of defense over a sustained period of time.

This requires cooperation and good will. It requires the Executive Branch and the Department of Defense to admit their mistakes, to make economies and improve efficiency, to resist proposing excessively expensive weapon systems, and to reform their procedures to make economies possible. It also requires that those who would economize understand that the scope and complexity of defense in the 1970's means that reform takes time.

The committee has tried to balance all of these considerations this year, and, through the process of compromise, believes it has done so successfully.

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But serious problems lie ahead. The cost of military manpower and the expensive technology of weapon systems are forcing a change in the way we must analyze military requirements and budgets. As this committee pointed out two years ago in this report:

> If the geometric cost increase for weapon systems is not sharply reversed, then even significant increases in the defense budget may not insure the force levels required for our national security.

The committee report of that year concluded:

> The present rising trend of manpower and weapon system unit costs means that we will soon see either striking increases in Defense budgets, a sharp decline in force levels and readiness, or reform of the weapon system development and procurement process. If defense budgets are to remain more or less constant, as now seems likely, and consume an ever smaller part of the nation's resources, then the present development and procurement policies are no longer open to us. They only point the way to burdensome increases in defense spending, inadequate forces for defense, or to both of those unacceptable alternatives.

The committee regrets that this dilemma is even sharper today than it was two years ago.

The Acquisition of Major Weapon Systems

It is becoming increasingly clear that the cumbersome procedure of implementing policy to improve the weapon acquisition process within the Department of Defense must be periodically streamlined by the Congress through the legislative process.

In the past the committees have recommended legislation for requiring operational testing and reporting to the Congress. This committee has also recommended language intended to monitor and provide more effective management control over specific weapon systems. In other cases the committee has recommended reduction or elimination of specific weapon systems that were becoming too sophisticated and costly. This year, for instance, the committee is recommending language restricting the F–14 program because the Navy has been unable to adequately negotiate contract terms for the past two years.

Last year the committee, in commenting on the new Department of Defense procurement policy, stated that issuing a policy without effective implementation is insufficient. The committee would like to again remind the Department of Defense of the need to take some hard actions to provide effective management of the acquisition of weapon systems. In theory it does not seem proper for the Department of Defense to abrogate its management responsibilities in the development and procurement process and to leave the job of reform to the Congress. However it seems that in some areas this dependence may be growing.

Uneconomical Procurement Practices

The committee is concerned with continued requests for weapon system production at generally low and uneconomical rates. The advantages of a warm production base are recognized. However,

economics argue against maintenance of warm production bases for a multiplicity of systems. The committee recognizes the complexity of this problem but believes, nevertheless, that a thorough study in this area is in order to assure that there are compelling military reasons for uneconomical procurement lots.

Last year, expert testimony by both outside and Defense witnesses pointed out that an important step in controlling defense costs was to reduce the size of the development and production base that supports the weapon system acquisition process. Testimony again this year suggested that there was considerable excess industrial capacity to support defense requirements. No estimate was given on the savings that would result by proper sizing of both Defense and industry support, but cost reductions may be substantial. Defense will be expected to address this situation on a priority basis.

Concurrency

The committee continues to oppose excessive concurrency in acquisition of weapon systems. Some overlapping of development and production may reduce initial costs, but the long term costs of supporting, maintaining, and ultimately fixing weapons systems that were prematurely introduced into the inventory before development and testing were adequately completed far exceed the initial saving. Of even more importance, premature introduction of new weapons systems has too often resulted in a lower state of readiness because of poor weapon system performance.

Even though the Department of Defense has issued policies to eliminate concurrency, there were too many examples in this year's request of undesirable concurrency. It was noted last year that "issuing a policy without effective implementation is insufficient." The committee must insist on efficient and effective management and implementation of policies in this area.

Operational Testing

The committee is gratified with the beginning steps that have been made in the area of operational testing, although much remains to be done. There is no substitute for this type of proof testing of the development process by the military personnel that will be required to operate and maintain the weapon system. Any attempt to bypass or dilute this essential phase of the weapon system acquisition process must be eliminated and the scope and independence of operational tests should be increased.

ASPECTS OF BILL OF SPECIAL INTEREST

F–14

Once again the committee examined the F–14 program in considerable detail. Its Tactical Air Power Subcommittee conducted several days of hearings.

The President's budget contained an original request for $633 million, including $572 million in procurement funds for 48 F–14As. It was not until June 19, 1973, that the final Administration position was received for 50 F–14As and $703 million in procurement funds. The $703 million includes $131 million requested in the budget for 10 Marine Corps F–4Js.

Committee Recommendation

The committee recommends statutory language which will authorize "not to exceed" funding in the amount of $197.6 million through December, 1973. The Navy is advised that none of this funding is available for advance procurement for a fiscal year 1975 buy. The committee action was based upon the lack of firm contract schedules and costs for fiscal years 1972, 1973 and 1974.

Prior Years Funding

Total prior years funds approved are $3.5 billion for 134 aircraft. This includes $1.063 billion for F–14A R&D; $370.5 million for F–14B R&D; and $2.070 billion for procurement.

Technical Performance

The F–14A aircraft is performing well technically. As of June 30, 1973 there had been 2200 flights and 4400 flight hours. A total of 27 aircraft had been delivered to the Navy.

Grumman is behind schedule in meeting deliveries. They hope to overcome this situation during 1973.

The committee is most anxious that a definitized and legally binding delivery schedule be established between Grumman and the Navy, and this was a contributing reason in the committee's decisionmaking process.

Costs

The most important issue with respect to the F–14 program is the unit cost per aircraft and total program costs.

The committee for the past 2 years has insisted upon compliance with the contract. On March 8, 1973, Grumman and the Navy entered into an agreement which in brief provided that (1) Grumman would produce the 48 aircraft in the fiscal year 1973 buy (Lot V) in accordance with the terms of its 1969 contract; and (2) the Navy would release Grumman from the contractual provisions pertaining to subsequent Lots. This meant the Navy and Grumman will negotiate F–14 purchases annually on a year-by-year basis.

Grumman advised the Navy that they cannot accept its original contract without going into bankruptcy.

The committee is keenly interested in the nature and extent of the cost increases which will result from annual purchases versus adhering to the contract. If 179 additional aircraft are purchased (134 to 313) the procurement unit cost is estimated at $15.7 million each. If all 313 aircraft are averaged, the program unit cost including R&D costs would be $20.1 million each with a total government commitment of $6.3 billion. The flyaway unit cost for the remaining 179 aircraft is estimated at $11.8 million each, representing an increase of $3.5 million in flyaway costs.

The reason for the $3.5 million increase in flyaway cost is (a) $1.45 million to purchase the aircraft "at cost" rather than enforcing the original contract; (b) $1.14 million per aircraft to stretch the program from 2 to 4 years; (c) $500,000 per aircraft for profit; and (d) about $400,000 per aircraft for increased cost of government-furnished equipment, etc.

In addition, the procurement unit cost per aircraft went up $2.5 million per aircraft to fund support and spares costs for approved aircraft carriers, as well as providing for Marine Corps support and spares.

Fiscal Year 74 Costs

Grumman and the Navy planned to negotiate a price for the 50 aircraft in this year's budget by December 1973. The committee felt this was an unreasonable period of time to reach an agreement on the price of the aircraft when the government had already purchased 134. Therefore, in view of the lack of firm F–14A prices for the 50 planes requested this year, the committee authorized only $197.6 million to fund the program through December, 1973. It denied the request for $505.4 million. After Grumman and the Navy complete negotiations, the Navy should return to the Congress and justify the remaining funds, including a proposed contract between the Navy and Grumman that is ready for signature. The committee will then make a decision on the remaining $505.4 million.

It is the committee judgment that an agreed-upon legally binding delivery schedule be presented at that time and, further, that lots IV and V shall have been completely negotiated.

F–14B

The committee is concerned with the status of the F–14B engine program. This is a joint development effort with the Air Force on the F–15 engine. It appears insufficient funds are in the fiscal year 1974 budget. The committee desires the Navy to present its recommended F–14B program when the case is presented for the $505.4 million.

Prototype Program

Secretary Clements requested on June 19, 1973, that the subcommittee authorize $150 million to initiate an F–14D/F–15N prototype program. He estimated the total cost at $250 million. The subcommittee heard subsequent testimony from Mr. George A. Spangenberg, a recent retired Director of the Navy Evaluation Division for all Navy aircraft. He took significant exception to the wisdom of initiating such a program. The committee, after weighing all the evidence, unanimously concluded insufficient justification existed to initiate a proto-

type program that would cost at least $367 million, if the Navy figures are accurate, plus significant added costs for engineering development.

It was the committee's judgment that the Defense Department could either conduct computer analyses or an actual aircraft flyoff if that is deemed essential rather than spending the enormous sums required for a prototype program.

The committee believes the Navy should examine the potential of a completely new aircraft as a possible alternative to the F–14 in the out-years. The Navy should obtain proposals from industry and evaluate these proposals to determine if a smaller and presumably cheaper aircraft can be designed to serve as an air superiority fighter to complement the F–14. Once this determination has been made, the committee desires to receive the Navy determination, including the costs of such alternatives as well as a technical evaluation.

Committee Recommendation

The committee therefore recommends the denial of this $150 million request.

F–15

Authorization Request and Committee Recommendation

The fiscal year 1974 request is for $229.5 million in R&D, $801.0 million in procurement funding for 77 production aircraft, and $116.6 million for initial spares. The 77 aircraft plus the 30 approved last year will complete procurement of the first operational wing of F–15s.

The committee recommends approval of the full request of $1,147.1 million for the F–15 program.

House Action

The House reduced the quantity of aircraft in half to 39, and reduced the procurement and spares funding to $587.6 million, a net reduction of $330.9 million. Development problems with the engine were cited as necessitating a slow down in the production program.

Program Schedule

The F–15 development program started in January 1970. First flight of an F–15 test airplane occurred in July 1972, and the total development program now is well along with 8 airplanes flying in the test program at the time of this report. The first production F–15 will not be delivered until November 1974, 29 months after the start of the flight test program and after 20 test airplanes have been delivered. The 30 production aircraft funded in fiscal year 1973 will be delivered through September 1975 and the 77 fiscal year 1974 aircraft will be delivered between October 1975 and June 1976.

Development Status

The flight test and ground testing of the airframe and avionics systems have been proceeding well. Only the usual types of problems have been encountered to date. Air Force test pilots have been particularly impressed with the F–15's performance, stating that the airplane has outstanding potential as an air superiority fighter.

The development of the engines for the F–15, however, has not been proceeding smoothly. Early in the development cycle, in 1971, a significant design change was made to the engine because performance requirements were not being met. Despite this major change, the

Air Force attempted to complete development qualification by the originally scheduled date of February 1973. The committee's report a year ago warned that some slip in this Military Qualification Test (MQT) could be expected but pointed out that there was ample time to qualify the engine before production aircraft deliveries started in November 1974.

The engine qualification has in fact slipped. A widely publicized series of materiel failures have occurred in attempting to mature the engine to the point that it can pass the 150-hour MQT durability run. The latest schedule now calls for completion of this test in September, which is 7 months behind the earlier schedule. The test airplanes, however, have been flying routinely with the engines, having accumulated over 700 flight hours without failures.

Other engine problems have been encountered in the flight testing of the F-15. These are associated with the operation of the afterburner at high altitudes and slow speeds. Afterburner "blowouts" have occurred in this part of the F-15s flight envelope, a condition which must be corrected before the airplane is ready for combat operations. This type of afterburner problem is not unusual in military fan-jet powered airplanes; indeed, every one to date including the F-111, British F-4 Phantom, and F-14A has experienced them. In all previous cases, they have been solved during the flight test program. With the F-14A, for example, these afterburner malfunctions took about a year and a half to fix but the airplane's engines now work well.

To summarize the committee's assessment of the development status, the problems that have been encountered do not appear unusual for a new airplane, nor do they appear unsolvable. Durability always takes time to build into a new engine, yet invariably it is achieved. Likewise the engine operating problems discussed above are not unique and they have been mastered before. The F-15 development program is very conservative, with a long flight test period yet to go before production airplanes are delivered. The committee believes that the Air Force has set forth reasonable and achievable schedules to resolve the current problems within the present development and production schedule and that no change to that schedule is necessary at this time.

F-15 Funding Period

Last year the committee report pointed out that the present F-15 contract has fiscal year options for production airplanes delivered well after the following calendar year, the usual funded delivery period. In other words, the airplanes funded in fiscal year 1974 usually would be those to be delivered in calendar year 1975. As noted in the program schedule discussion above, this year's F-15s mostly are for delivery in 1976, due to the schedule in the present contract. The fiscal year 1975 F-15s will be covered in a new contract option, and the committee recommends that the contractual coverage be brought back into line with the normal funded delivery period.

CVN-70 NAVY CARRIER

Funding in the amount of $299 million for construction of long leadtime components for CVN-70 was authorized and appropriated last year. This $299 million has been obligated, and these needed

components, primarily for the nuclear propulsion plant, are in their manufacturing processes.

Committee Recommendation

For fiscal year 1974, the committee recommends completion of funding of CVN–70 in the amount of $657 million.

CVN–70 is the third ship of the *Nimitz* class. The first two ships of the class are now under construction—the *Nimitz* is in final testing and fitting-out stages prior to delivery; *Eisenhower* follows by about 21 months. CVN–70 will be constructed to the same plans, use the same two-reactor propulsion plant, and employ the same proven aircraft operating facilities on a construction schedule leading to delivery to the Navy in September, 1980.

Aircraft carriers are indispensable components of United States naval strength now and for the foreseeable future. The carriers provide essential sea based capability to defend the worldwide sea lanes so vital to our national economy and survival. With the reduction of overseas bases and forces, aircraft carriers operating in international waters provide a mobile capability to employ effective and credible naval power, under complete and unquestioned United States control, to meet any vital national interests.

The number of aircraft carriers in service, however, has declined in recent years and faces further inevitable reduction with the retirement of World War II ships. Today's force of 15 aircraft carriers is just ⅔ the force of the mid-1960s. The present 15 carriers include 6 that date back to World War II construction and now face early retirement.

CVN–70 represents an absolute minimum replacement effort. It is needed to provide essential modernity for our Navy. Where numbers of ships are being reduced, as our aircraft carrier forces are, the ships retained must provide a wide range of modern naval capabilities and must be able to perform their missions reliably and effectively. The demonstrated effectiveness of nuclear propulsion in aircraft carriers will insure that CVN–70 will have this needed quality of performance.

When CVN–70 is completed in 1980, the United States will have only four nuclear-powered aircraft carriers, together with eight oil-burning *Forrestal* class carriers. The responsiveness of nuclear propulsion will permit the four carriers to be maintained in a high state of readiness, two in the Atlantic and two in the Pacific, prepared to move quickly and decisively to reinforce distant naval forces. The resulting 12 modern carriers are an austere but adequate and effective Naval force capable of meeting national commitments.

CLOSE AIR SUPPORT PROGRAMS

Committee Recommendations

The four aircraft programs which can be categorized as related to close air support are the Marine Corps AV–8A Harrier, the Army Advanced Attack Helicopter, the Air Force A–10 (A–X), and the Air Force A–7D. The committee recommendations are as follows:

AV–8A

Twenty aircraft requested and $90.1 million; $6.0 million reduction recommended.

Advanced Attack Helicopter

$49.3 million for R&D requested; $3.5 million reduction recommended.

A–10 (A–X)

Ten R&D aircraft and $112.4 million R&D funding, plus $30 million in procurement long lead funds requested; $92.4 million in R&D funds and 6 R&D aircraft recommended (the committee reduction thus is $20 million and 4 aircraft in R&D plus all $30 million requested for production).

A–7D

No procurement was requested. The committee recommends addition of $70.1 million to buy 24 A–7Ds for the Air National Guard.

The committee also directs that the Air Force conduct a flyoff between the A–7D and A–10 to obtain the opinions of operational pilots on their relative suitability for close air support and interdiction.

AV–8A Harrier

Budget Request and House Action

The request for $90.1 million for 20 aircraft is for the last planned procurement of the V/STOL Harrier light attack airplane for the Marine Corps. The House approved the $90.1 million requested.

Status of Program and Basis for Committee Action

Ninety aircraft to support 3 operating squadrons have been ordered through fiscal year 1973. The final buy will provide a training squadron of 14 airplanes, plus repair and attrition aircraft, and will complete the program of 120 Harriers. Included in this request are 8 two-place trainer versions which will aid in pilot transition to V/STOL aircraft. Last year the committee recommended limiting the Harrier program to 60 aircraft, viewing the program as an operational experiment with V/STOL aircraft where larger quantity procurements should await increased capability from advances in the technology. The program did receive authorization and appropriations, however, and with the procurement this far along the committee believes that this training squadron is justified to round out the Marine Corps Harrier program.

The fiscal year 1974 funding request was based on equipping the 20 aircraft with an inertial navigation-attack system. Plans for procurement of this equipment have since been cancelled, and a simpler and cheaper baseline avionics system will be used at a net savings of $6.0 million. The committee recommends a $6.0 million reduction and an authorization of $84.1 million.

Advanced Attack Helicopter

Budget Request and House Action

The Army requested $49.3 million for development work on the Advanced Attack Helicopter (AAH) in fiscal year 1974. The House approved the full amount.

Committee Recommendation

The committee recommends a reduction of $3.5 million, thereby approving a request of $45.8 million for this program in fiscal year 1974. The reason for this action, as basically discussed below, is that there are prior year funds remaining in the terminated Cheyenne helicopter program that can be utilized for the AAH program.

Status of Program and Basis for Committee Action

Last year the committee deleted all of the funds requested for continuing R&D on the Cheyenne attack helicopter. The committee report stated "The action taken in deleting fiscal year 1973 funds for the Cheyenne RDT&E program applies only to that specific aircraft and indicates the committee's concern with the cost and anticipated manpower support requirement of this weapon system. Assuming that questions regarding helicopter vulnerability are resolved successfully, the committee believes that there is a valid requirement for a more capable attack helicopter." Subsequent to the committee's action, which was approved by the Senate, the Army announced termination of the Cheyenne project on August 9, 1973 and requested authorization to initiate development of a lower cost but higher performance advanced attack helicopter. The House and Senate conferees agreed to this and $20 million was appropriated to start the program.

After a design competition, Bell and Hughes were selected in June 1973 to build competitive prototypes of the AAH. Both aircraft are smaller, lighter, and considerably more agile than the Cheyenne. These will participate in a flyoff in 1975–6, and the winner will complete the development and go into production. The average estimated cost of an AAH is $1.8 million flyaway and $3.1 million program unit cost, including R&D, support, and spares, in 1972 dollars. With a 25 percent inflation allowance, this becomes a $3.8 million program unit cost in "then-year" dollars, which compares to the $5.8 million then-year cost estimated for the Cheyenne.

Attack Helicopter Combat Demonstrations in 1972

In 1972 the Army introduced its TOW missile-equipped helicopter gunship into combat in South Vietnam during the heavy fighting in the Spring offensive. Only 2 TOW-equipped helicopters were available, but they were used around Kontum when that city was surrounded and under seige. The results were impressive. Of 133 combat firings, 107 hits were scored for an 80 percent success ratio and 27 tanks, 15 vehicles, and 33 other point targets were destroyed. Some tanks were knocked out after they had penetrated into the streets of the cities where tactical air strikes could not get at them. Neither of the TOW-equipped helicopters ever was hit by ground fire.

Another demonstration of the value of the missile-armed helicopter was obtained from a tri-nation operational exercise in Europe last year. A combined U.S.-German-Canadian Army mock battle pitted Huey Cobra attack helicopters against attacking German Leopard tank columns in the Ansbach area of Central Germany. The Leopards were accompanied by mechanized anti-aircraft units simulating the Soviet Quad-23 system, while the Cobras simulated TOW missile firings. The final overall kill ratio showed 18 tanks destroyed for each Cobra knocked out, and gave a dramatic demonstration of the potential of the attack helicopter on European terrain and in a mid-intensive scenario.

Between the combat results with the TOW missile in Southeast Asia and the war-game results in Europe, the Army obtained in 1972 some highly impressive substantiation of its belief in the effectiveness and survivability of the attack helicopter. The committee believes that its place as an essential element of firepower on the battlefield appears well confirmed.

A–10 (A–X) and A–7D

Budget Request and House Action

The A–10 request was for $112.4 million in R&D for development and fabrication of 10 R&D aircraft, plus $30 million in the procurement account for long lead production items. The House approved the full request.

No A–7D procurement was requested.

Committee Recommendation

For the A–10 (A–X) the committee is recommending a reduction of $20 million in R&D and elimination of the $30 million requested in long lead procurement funds. This action leaves a total of $92.4 million in R&D for this program for fiscal year 1974.

For the A–7D the committee is recommending an authorization of $70.1 million for fiscal year 1974 which will permit the procurement of 24 aircraft to further modernize the Air National Guard.

Status of Programs

The Fairchild A–10 was selected as the winning A–X candidate over the Northrop A–9 at the end of their competitive prototype flyoff program, and a contract for engineering development was signed in March, 1973. The contract calls for 10 R&D funded aircraft, 6 for development flight testing and 4 for initial operational test and evaluation (IOT&E). A contract for long lead production hardware items is scheduled for May, 1974 with the full production contract scheduled for October, 1974. The first R&D test airplane will not fly until December, 1974.

The A–7D is in production and is operational in the Air Force with 411 aircraft procured through fiscal year 1973. The last delivery of these planes will take place in December, 1974.

Basis for Committee Action

Last year the committee approved the funding requested for the A–X to continue development, but it added the following language in the report:

"The existence of the A–X prototypes will allow a thorough operational test and evaluation of this approach to close air support before the commitment is made to continue development and production. The close air support subcommittee recommended that this evaluation include a flyoff, a side-by-side flight comparison, with existing close air support airplanes, and the committee believes that this should be a part of the Air Force's A–X evaluation program."

The genesis of this recommendation was the hearings and report of the Close Air Support Subcommittee. That report pointed out that the A–X is being developed under a totally different operational concept than the existing swept-wing jet light attack airplanes. While the A–X weighs about the same as the A–7D, it has a much larger unswept wing which gives the A–X more airborne loiter time, more payload, and allows operation off of shorter runways than the present A–7D or A–4M. Conversely, the straight wing design drastically limits the speed of the A–10. Top speed of the A–10 prototype was only 350 knots (although it is hoped to improve this to 390 knots in the production version), whereas the A–7D and A–4M have a top speed of 610 knots.

The close support subcommittee stated that the concept of operating "low-and-slow" should be subjected to a thorough operational test and evaluation with the prototypes, using operational pilots, and that the evaluation should include a direct flyoff comparison with the A–7D and A–4M. To date, this has not been done by the Air Force and operating command pilots with combat experience have not been asked to compare and recommend between the A–10 and A–7D.

In 1972 the A–7D was deployed by the Air Force to Southeast Asia, where it obtained excellent combat results. Between mid-September, 1972 and the end of March, 1973, the A–7Ds in Southeast Asia flew 6500 combat sorties. They had less than a 1 per cent mission abort rate, averaged 60 hours per month per airplane or double the peacetime flying rate, had only 16.5 maintenance man hours per flight hour, demonstrated excellent bombing accuracy with FACs reporting average 10 meters miss distances, and had an extremely high secondary explosion rate of 25% because of the accurate bombing on supply points. There were only 2 combat losses in the 6500 sorties. In addition, the Navy A–7E, twin to the A–7D, operated routinely in the high threat areas over North Vietnam in 1972 and had the lowest loss rate of any attack aircraft, further demonstrating the A–7's survivability.

Because the A–7D is a proven combat airplane, and the best close air support airplane in the world today, the committee insists this year that the A–10 and A–7D flyoff take place at the soonest possible time.

Modernization of the Air National Guard

The Guard currently operates over 500 F–100s, the backbone of the Guard's tactical force. These airplanes are 18 years old, or older, and badly need replacement with newer and more capable aircraft. The committee strongly supports the concept of having a modern and effective Air National Guard that can augment the active forces in time of national emergency. Three squadrons of A–7Ds will be activated in the Guard in fiscal year 1974 from airplanes already ordered in prior years. The committee has added procurement of 24 more A–7Ds this year in order to keep the A–7D production line open until the A–10 and A–7D flyoff is completed. The committee intends that these aircraft are to be used to further the modernization of the Guard.

The committee also directs that the five year defense planning program document to be presented to the Congress next year include a specific procurement plan for prompt modernization of the Guard by replacement of the F–100 force.

C–5A

The fiscal year 1974 budget request in this legislation for the C–5A included $43.1 million towards completing the wrap-up of the production program and $17.4 million in support funds.

Committee Recommendation

The committee recommends a reduction of $5.9 million in the procurement line item funding request. Subsequent to the submission of the budget, the Air Force has revised its program and advised the committee of the reduced funding requirements of $37.2 million.

The committee has been advised that this $37.2 million will be sufficient for fiscal year 1974. It is anticipated that with approval of this sum no further funds will be needed for the procurement of this aircraft in the normal line item process. Any further requirement will be in the form of spares, modifications, or the like.

Production Progress

The final C–5A aircraft completed production in February 1973, and was delivered to the Air Force in May 1973. A total of 81 of these C–5A aircraft were produced, and two of these were subsequently destroyed in ground fires. The aircraft, through May 1973, had flown a total of 96,920 operational hours and 8,740 flight test hours.

The committee has monitored the progress of this program very closely since the contract was restructured in fiscal year 1971. It is important to note that during a period of rising inflation, from fiscal year 1971 through the present time, the total program cost estimate has been reduced by over $125 million. The committee believes that the results of its close investigations of the program cost and funding requirements has had much to do with holding down the overall program expenditure. The committee expects that the services can take note of this in other programs that are now, or may be, in financial difficulties.

Restrictive Language

The committee again recommends that the language provisions contained in the fiscal year 1973 Act relating to the use of contingency funding and subsequent development and procurement funding be continued and applied against $28.4 million of the funding recommended for authorization. The remaining $8.8 million in recommended funding is to be applied against contracts other than that which was restructured.

ARMY AND AIR FORCE UX AND CXX AIRCRAFT PROGRAMS

The committee has given careful consideration to the Fiscal Year 74 requests of the Army and Air Force for Utility Aircraft as well as the most recent request of the Army for a separate procurement for the Fiscal Year 73 authorization.

The committee concludes that since the aircraft authorized for Fiscal Year 73 have not yet been purchased, there is no reason, at this time to authorize the Fiscal Year 74 request of the Army and of the Air Force. Therefore, the committee recommends denial of the request of the Army for $12.2 million for 20 aircraft and the request of the Air Force for $9.6 million for 16 aircraft.

The committee believes the logic for a joint competitive procurement remains valid and, therefore, strongly recommends the aircraft authorized for Fiscal Year 73 be procured in that manner. Further, the committee can find no valid justification for increasing the performance specification requirements over those originally approved and recommends the procurement of the Fiscal Year 73 authorized aircraft be limited to propeller driven aircraft only.

SIDEWINDER/CHAPARRAL MISSILES

Committee Recommendation

The committee recommends deletion of the entire $1.5 million requested by the Navy for long lead procurement of the new AIM–9L version of the Sidewinder missile. The Navy request for $14.8 million for continued production of the AIM–9H is approved.

Background

The Sidewinder is a heat-seeking or infrared-guided short range missile used by the Navy and Air Force as their basic dogfight missile on their combat airplanes and also used by the Army as a short range surface-to-air missile deployed with field units. The Army calls their version the Chaparral, although it essentially is a –9D Sidewinder.

Sidewinder has been in production since the mid-1950s, and has gone through a series of product improvements. The latest improvement, now in development, is to modify the IR guidance unit to allow the missile to be fired head-on against incoming aircraft. The Air Force and Navy are developing the –9L jointly, while the Army is developing a different version designated AN/DAW–1.

Basis for Committee Action

Last year the committee stated its belief that the Army should examine the possible use of the –9L when new Chaparrals are procured, because of the benefits of common, high quantity, competitive production buys. Since then the –9L has encountered technical development problems. The committee reiterates its belief that a single version of the Sidewinder/Chaparral probably can serve the needs of all three Services in this particular application. The Defense Department should study this matter carefully to determine whether either of the new missile configurations can meet air-to-air and surface-to-air mission requirements before again requesting production funds for Sidewinder/Chaparral.

LASER GUIDED MISSILES

Committee Recommendation on Maverick, Bulldog, and the Hellfire Missile System

The committee recommends deletion of $8.0 million in R&D funds requested by the Air Force to begin engineering development of a laser seeker for the Maverick missile. The committee recommends addition of $12.5 million in procurement funds for the Navy to commence production of the Bulldog missile. The Committee recommends approval of the Army request for $11.2 million in R&D funds to continue development of the Hellfire missile system.

Background

With the advent of laser-guided bombs in Southeast Asia combat in the late 1960s, the Services began to look towards the use of laser guided air-to-ground missiles to obtain the pinpoint accuracy being achieved with the guided bombs. In 1969, the Navy began development of a laser seeker to go on the existing radio-guided Bullpup missile. Subsequently, in 1971, the Army began development of a laser-guided Hellfire missile and the Air Force started R&D on an alternate laser seeker for its TV-guided Maverick missile.

Description of Missiles

The Bulldog is a rocket powered missile weighing about 500 pounds with a 250 pound warhead, and is used on high speed jet aircraft for close air support. The Maverick also is in the same general size category, with a somewhat smaller warhead, and is used on the same types of aircraft. The Hellfire is proposed as a much smaller missile, about 60 to 75 pounds, and will be helicopter carried and launched. Its operating environment is distinctly different from that of jet aircraft.

There is an existing stock of several thousand Bullpup missiles available to convert to the Bulldog configuration. The laser guidance package must be bought new, but the cost of a new missile airframe can be saved with this modification.

Tri-Service Seeker Program

With the rapid growth of laser technology and weapons, Defense Research and Engineering in 1971 began a tri-service review of all laser guided weapons and systems to assure interoperability of systems (designators and seekers) and to prevent duplication. This DDR&E review concluded that a single laser seeker design should be attempted for the Bulldog, Maverick, and Hellfire missiles and further directed in 1972 that the then undeveloped Maverick seeker should be selected for this purpose. Subsequently, DDR&E directed a "flyoff" between the three candidate seekers, to occur in 1972 through 1973, and rejected a Navy request to begin production of the Bulldog.

Basis for Committee Position

When the committee reviewed these programs this year, it found that the Bulldog missile had completed development and testing and was ready for production, with a total expenditure of $16.4 million invested in the program. On the other hand, the Maverick laser seeker was proposed to start into engineering development this year at an estimated total cost to completion of $16.0 million. The proposed flyoff would cost a minimum of an additional $2.9 million.

The Marines have an existing inventory of A–4M airplanes with laser target designator/trackers and therefore have an immediate capability to use a laser close support missile. The laser Maverick, however, would take at least 2 to 3 years to develop. The committee concluded that the Bulldog should enter production now and its laser seeker should be adapted to the Maverick airframe to provide an Air Force laser weapon at minimum cost and the earliest time. The Maverick appears to be the logical missile for Navy and Marine use when the existing stock of Bullpup airframes is used up.

The committee recommends that the Army examine the Bulldog seeker to see if it can be adapted to the Hellfire missile, but *only* if this can be done without compromising the helicopter-launched missile requirements.

B–1 AIRCRAFT

Authorization Request

The Air Force request includes $473.5 million to continue engineering development of the B–1 advanced strategic bomber.

Committee Recommendation

The committee recommends a reduction of $100 million, which will leave $373.5 million for continuation of the B–1 program. In making this reduction, the committee wishes to emphasize that it is not satisfied with the progress and management of this program and expects the Air Force to show marked improvement during fiscal year 1974. A commitment to production will not be required before fiscal year 1976.

Background

The need for a follow-on advanced strategic bomber, to replace the aging B–52 G and H force, has had the full support of the committee since the program entered engineering development in June 1970.

During the past 2 years, despite a series of amendments to reduce or deny the funds requested for the B–1, and despite extensive debate in both Houses of the Congress, the program has been approved as proposed by the Department of Defense. The intent of the Congress has been clear in recognizing the need to develop a more technically advanced and capable third leg of the Triad to insure the effectiveness of our deterrent through the remainder of this century.

However, the committee cannot be insensitive to the significance of major technical problems which arise and to the attendant increases in program cost. There should be a point beyond which program costs may not be permitted to rise and where other alternatives must be considered regardless of the importance of a program.

On April 6, 1973, the B–1 program manager stated before the committee that the program was in good shape and that both time and cost schedules were being met satisfactorily. However, the Secretary of the Air Force advised the committee in writing on July 12, 1973, that serious difficulties had been encountered in the program, that the first airplane had to be delayed by 2 months, the second airplane by 6 months, and the production decision at least a year. The committee also was advised that an additional $78 million would be needed in later years to complete the research and development program and that $266 million additional would be required to procure the quantity of aircraft planned for production.

On July 27, 1973, at the request of the committee, the Secretary of the Air Force, the Chief of Staff Designate, and the B–1 Program System Director appeared before the committee to testify concerning the specific facts leading up to the notification to the committee of the problems encountered in the B–1 development program. The Secretary of the Air Force, in response to a direct question, was unwilling to assure the committee that the revised program would be adequate and that further increases in cost or program slippage would not occur. Without this assurance, and considering that the development program is just approaching the halfway mark, the committee is apprehensive that unforeseen technical problems could arise that would cause further delays and increases in cost above the present average unit production cost of $45.2 million, which with research and development costs prorated has increased to $56.7 million.

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Committee Considerations

The reduction of $100 million recommended by the committee is not identified with any specific actions to be taken by the Air Force; rather, it is an expression by the committee with its dissatisfaction and serious concern regarding the management of this program. The committee has been advised that by October 1, 1973, the Air Force will provide a revised estimate of costs of much higher quality than has been previously available. It will also include results of some 3 to 4 months of additional testing and progress accomplished. This information will be available in time for final congressional action on the authorization and appropriation bills for fiscal year 1974 which should provide the Congress a more meaningful basis for its decisions.

The committee is convinced that the B–1 development program must show marked improvement in both management and cost control and in technical progress if it is to be continued as a viable program. The Air Force is encouraged to seriously consider other alternatives to the B–1 program in the event that such an alternative becomes necessary.

DEFENSE PILOT TRAINING: NAVY T–2C TRAINER AIRCRAFT AND SIMULATORS; AIR FORCE SIMULATORS

Committee Recommendation

The committee recommends approval of the Navy request for $6.4 million for three undergraduate pilot simulators but recommends denial of the Navy request for $26.1 million for 24 T–2C trainer aircraft and the Air Force request for $5.5 million for a simulator complex.

Basis for Committee Action

The committee has concluded that the total Defense pilot requirements, inventories and training rates together with the assets available to meet the pilot training requirement should be comprehensively reviewed prior to additional requests in this area. The Navy, based on their stated pilot training loads, has insufficient aircraft assets to meet its requirement. However, the committee is aware that the Air Force has excess trainer aircraft that could fill this requirement. The committee believes, especially at a time when funds for required weapons systems are becoming more scarce, that the Navy requirement can be matched up with the excess trainer aircraft of the Air Force, thereby precluding the need to procure additional trainer aircraft at this time.

The committee, subsequent to the initial budget request, also was requested by the Air Force to approve $5.5 million to begin a procurement program for T–37 and T–38 undergraduate pilot training simulators, a program estimated to cost slightly more than $200 million. The Air Force request was not a formal amendment to the authorization request and had not, as a procurement program, received approval by the Department of Defense. For this reason the committee declines to include in the fiscal year 1974 request $5.5 million to start this simulator program.

This action should not be construed as lack of support for use of simulators but rather that the committee believes that prior to any

of the Services undertaking a program of this magnitude, the Department of Defense needs to carefully examine its total requirement for simulators.

The committee is convinced that DOD must expand substantially use of flight simulators in support of flight training and in the maintenance of combat readiness levels in operational units. Recent findings of the GAO suggest that substantial reductions in training aircraft inventory levels and combat unit flight operations can be achieved without reducing the effectiveness of the combat forces, provided that a vigorous effort is initiated by the Department of Defense to procure and operate these systems.

The committee also notes that the continuing rise in weapons systems costs, coupled with the concurrent increases in manpower and fuel resource requirements make flight simulators an increasingly attractive alternative to reducing the size and capability of our combat forces.

The committee, in addition to the overall review of pilot training needs and assets mentioned above, requests that the Secretary of Defense, in conjunction with the submission of the FY 1975 budget, provide a detailed assessment of simulator applicability to all aircraft types in the Defense inventory.

In addition, the committee requests that all future procurement requests specifically identify aircraft simulators on the same basis as the aircraft they are designed to support.

STRATEGIC CRUISE MISSILES AND DECOYS

Committee Recommendation

The Department of Defense has requested that funds be authorized to continue the development of the Air Force Subsonic Cruise Armed Decoy (SCAD) and the Navy Strategic Cruise Missile (SCM), both of which would be employed to increase and strengthen U.S. strategic offensive capability. The amounts requested, together with committee recommendations and the amounts approved by the House, are as follows:

[In millions of dollars]

	Request	Committee recommendation		House bill [1]
		Change	Amount	
SCAD	72.2	−72.2		22.0
SCM	15.2	−15.2		15.2

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.

Description of Programs

SCAD—A long range, air launched, subsonic turbofan powered vehicle to be compatible with and employed on the B–52G and H strategic bomber force, first as a decoy, to enhance their penetration capability. Provisions for the armed option are being incorporated in the system design.

SCM—A submarine launched (torpedo tube or vertical launcher) turbo fan powered, very long range (more than 1,000 nautical miles) subsonic, low altitude strategic cruise missile.

Background

SCAD—The development of SCAD has been pointed toward providing a decoy to be used on the B–52 G and H fleet to assist in penetration of strategic targets. Two years ago, when the Armed Services Committee recommended approval of $10 million for this program, it directed the Air Force to pursue this development as a dual role system in order to provide both a decoy and an armed capability. The Air Force has proceeded with this program solely as a decoy, notwithstanding the direction of the Congress.

It is generally recognized that the Air Force has resisted pursuing SCAD with an armed warhead because of its possible use as a standoff launch missile. This application could jeopardize the B–1 program because it would not be necessary to have a bomber penetration if a standoff missile were available as a cheaper and more viable alternative.

The Defense Systems Acquisition Review Council (DSARC) reviewed the SCAD program on March 15 and April 13, 1973. The DSARC, after the April 13 review, recommended that the Air Force restructure the SCAD program to provide for concurrent development of the decoy and the armed and range-extended SCAD consistent with minimizing cost and schedule impact. The Air Force did not comply with this direction, and the issue was left up in the air pending a Secretary of Defense decision.

Last year the Air Force justification for this program identified it as having application not only to the B–52 but also the follow-on B–1 bomber. The Air Force now states that the B–1 bomber can penetrate without the SCAD as a decoy and that the SCAD, as it is presently being developed, could not be used on the B–1. This represents a dramatic departure from the original concept for employment of this system.

The program presented this year reflects a major increase in total estimated cost for development from $285 million estimated as recently as the fiscal year 1974 budget submission in January 1973 to approximately $700 million. The Air Force also estimates that the procurement of the required quantity of 1,310 production missiles would cost an estimated $604 million. In total program costs, this equates to $1 million for each SCAD, which is hardly a cost effective value. This is further complicated by the continuation of technical problems which could have further delayed the program and resulted in even higher costs.

The Deputy Secretary of Defense decision to terminate SCAD as a full engineering development program, as stated in his letter to the Armed Services Committee dated July 6, 1973, was primarily because the "projected cost is incommensurate with its currently perceived benefits."

The Air Force was directed to pursue a vigorous technology program to keep open an option to develop SCAD or other system if the threat requires, and also including a subsonic cruise missile. This program will provide for a technology demonstration of critical subsystems as well as interface design efforts with other programs. It will continue

development of turbofan engines and completion and test and evaluation of the SCAD brassboard B–52 decoy electronics. Management of the program is to include participation by the Navy.

The decision also reduced the $72.2 million requested for fiscal year 1974 by $50.2 million to $22.0 million to continue the program with minimum impact on existing contracts.

SCM—Last year, $20 million was requested as part of the SALT related add-on budget amendment to initiate this program. This request was reduced to $10 million in the authorization act and to $6 million in the appropriation act.

The $15.2 million requested for fiscal year 1974 would initiate a competitive demonstration prototype program for 21 months, leading to selection of one contractor for engineering development.

The Navy estimates that the prototype demonstration phase of this program will cost $148.3 million, and that an additional $521 million would be required to complete engineering development. Follow-on production costs were not identified but would add substantially to this total development cost of $669.3 million, making this another multi-billion dollar program.

The basic issue involves the question of the need for another strategic weapon system in addition to the major improvements provided by MIRV, the B–1, and Trident. Moreover, the Air Force SCAD technology, if ultimately directed to provide the basis for an armed capability, could be used as a stand-off, air-launched missile against the same targets, in the eventuality that such a capability is needed.

The Navy testified that they had structured this program as a strategic missile to support SALT II discussions. They stated that a tactical version of this missile would provide a significant improvement in range over Harpoon, but the tactical requirement has been deferred in order to pursue a strategic capability which is more sophisticated, more complex and, therefore, more expensive.

Indicative of the uncertainty surrounding this program within the Department of Defense is the delay of the DSARC meeting from May 24, 1973, to June 14, 1973, and still delayed as of the time of the writing of this report.

Committee Guidance

The committee is concerned that the Department of Defense has not as yet come to grips with the broader issue of what technology to direct the Air Force and the Navy to pursue to provide the advanced technology and subsystem building blocks from which to evolve weapon systems essential to our future strategic offensive capability. For example, a stand-off missile, carried in large quantity by relatively inexpensive, off-the-shelf aircraft which need not penetrate Soviet air defenses, may be a viable alternative to the troubled B–1.

In deleting the total amounts requested for SCAD and SCM, the committee determined that basic technology, up to subsystem and component development, may be conducted. With this objective in mind, the committee addressed a letter to the Deputy Secretary of Defense on August 6, 1973, which provided guidance and stated as follows:

"With respect to the Strategic Cruise Missile and Subsonic Cruise Armed Decoy programs, for which no funds have been allowed by the Committee, the Department may proceed with actions in accordance with the following language which it is planned to incorporate in the Committee report on the bill.

"In denying the funds requested for SCAD, the committee recognized that the Air Force budget also includes $130 million for exploratory and advanced development relating to airframe technology, propulsion technology, and aviorics technology, which may support a proposed new weapon system. In the case of the SCM, the Navy similarly has included in its budget some $80 million covering the same three areas of technology. This makes a combined total of $210 million that the Department of Defense has available specifically for technology that is directly applicable to an air-breathing, subsonic decoy or missile if and when the need should arise.

"Consistent with the committee denial of the funds requested, continued support of these technology programs is permitted without further action by the committee The $210 million is available and can be used for these purposes under the various programs for which these dollars are provided.

"The committee recognizes the possibility that the Department of Defense, during the current fiscal year, may formulate and establish a specific program requirement for a new decoy or missile. This could be the basis for a proposed programming action which the various committees of the Congress would then consider on its merit and, if approved, authorize initiation during fiscal year 1974. If there is no urgency such a proposal could be made as part of the submission of the fiscal year 1975 request.

"In this manner the committee will have provided the framework necessary to accommodate any urgent need which the Department of Defense can justify.

"Possible applications which complicate Department of Defense considerations of what system to develop raise questions of strategic vs. tactical needs, air launched, surface launched or submarine launched capability, speed and range requirements, and whether a decoy or a missile is required. It takes time to shake these out and decide what is needed and when it is needed.

"The intention of the Department of Defense to pursue both Navy and Air Force requirements in a coordinated manner is encouraging since it recognizes their joint interests. In his letter of July 6, 1973, on SCAD, the Deputy Secretary of Defense states, 'These (Air Force) activities will be managerially coupled with the Navy's subsonic cruise missile program in order to achieve an overall strong development effort which avoids duplication. Most of the key subsystems and major components apply to either cruise missiles or decoys.'

"In summary, the committee recommendations, while denying funds for these two programs, permit the Department of Defense to proceed in an orderly manner with the technology work which it considers necessary. It also will permit the Department, when it has formulated the requirement for a specific system, to present the plan to the Congress for consideration and approval."

SAFEGUARD ANTI-BALLISTIC MISSILE SYSTEM

Authorization Request

[In millions of dollars]

	Initial authorization request	House authorization	Senate committee recommendation
R.D.T. & E	216.0	191.0	199.7
Procurement	185.0	159.3	159.3
Total	401.0	350.3	359.0

Committee Recommendation—Funding

The Committee recommends authorization of appropriations for the Safeguard program in the amount of $359.0 million. This is $42.0 million below the initial request and $8.7 million above the amount approved by the House. The recommended funding of $359.0 million is for continuation of deployment only at the Grand Forks site.

Included in the recommended reduction of $42.0 million is $25.7 million in procurement which has been determined to be not required in fiscal year 1974. The remaining $16.3 million recommended for denial is for research effort in the general area of a "ballistic missile defense test program," the conduct of which is not in direct support of the Safeguard deployment program. This is discussed further under Title II.

Committee Recommendation—Language

The committee again recommends language in the bill which prohibits the use of funds for deployment except for Grand Forks.

Administration Request

The Department of Defense authorization request would provide for the continuation of deployment at one site at Grand Forks, North Dakota, which is consistent with the provisions of the Treaty on the Limitation of Anti-Ballistic Missile Systems. The requested authorization would continue to support the attainment of an Equipment Readiness Date (ERD) at the Grand Forks site of October 1974.

However, the Executive branch recommended no statutory language regarding the scope of activities to be performed under the Safeguard program funding.

Approval of Grand Forks, North Dakota, Site

It remains the intent of this committee to support increased survivability of the land-based strategic deterrent within the terms of the ABM Treaty. The completion of the Grand Forks site and the maintenance of a balanced advanced technology effort is critically important to the support of this intent.

Construction at the Grand Forks site is essentially completed, and 99% of the Perimeter Acquisition Radar (PAR) and Missile Site Radar (MSR) installation activities have been accomplished. Full power emission testing of the PAR commenced in June, and like testing of the MSR is scheduled to commence in September. Installation of Spartan and Sprint missile control and launch equipment is on schedule.

Estimated Complete Acquisition Costs

The current estimate of acquisition costs (R.D.T. & E., procurement, and military construction) for the Grand Forks site is $5.47 billion, of which $5.05 billion has been authorized and funded. The fiscal year 1974 recommendation is for $0.36 billion, and $0.06 billion is estimated to be required up to the Equipment Readiness Date of the Grand Forks site in October 1974.

BALLISTIC MISSILE DEFENSE RESEARCH AND DEVELOPMENT

Mission

The mission of ballistic missile defense is one for which the Army has been assigned primary responsibility within the Department of Defense. The success with which this responsibility has been fulfilled can be traced over the years through the evolutionary development of Safeguard.

Committee Recommendation

The Army has requested a total of $490.0 million to conduct research and development for ballistic missile defense. The amount, together with committee recommendations for reduction, is distributed as follows:

[In millions of dollars]

	Request	Change	Recommended
Safeguard	216.0	−16.3	199.7
Site defense	170.0	−70.0	100.0
Advanced ballistic missile defense	100.0	−42.4	57.6
Light area defense	(42.4)	(−42.4)	
Exploratory and advanced development	(57.6)		(57.6)
Other exploratory development	4.0		4.0
Total	490.0	−128.7	361.3

This total of nearly $500 million seems large when viewed in the context of the SALT agreement which limits ABM deployments to Grand Forks AFB, North Dakota and Washington, D.C. While the research and development on ABM is not constrained by the SALT agreement, it should be maintained at a level which is consistent with the revised and more limited national objectives for ballistic missile defense.

In evaluating the requirement for research and development funding for ballistic missile defense, there are two issues which emerge; the first is a matter of U.S. strategic policies and the second is the budgetary question of the proper level of funding.

First, the question of overall funding for ballistic missile defense research and development is largely a judgmental one. Certainly it is advisable to continue a level of effort to comprehend the implications of any new technology and be able to adapt our systems to new technological developments to assure that we stay ahead of the Soviet Union in these technical areas. The current Army request for $490.0 million is considered to be excessive for this purpose.

Since the deployment of Safeguard is so severely curtailed and it will have only limited effectiveness in most contingencies, it seems

purposeless to continue development spending beyond the requirements to complete the current deployment for which the committee has recommended $199.7 million as discussed elsewhere in the report.

Secondly, the policy issue is focused on the Army request for funds to conduct a prototype demonstration of the Site Defense (of Minuteman) program, and development of the Light Area Defense System (LADS).

SITE DEFENSE

Committee Recommendation

The committee recommends that the program be reduced by $70 million, to $100 million, which the Army has testified will support continued development but at a slower pace. The program can be accelerated later if for some reason it should become necessary.

Background

The Site Defense system is in its early stages of development and consists primarily of a state-of-the-art phased array radar, a third generation commercial data processor and related software, and a modified Safeguard Sprint interceptor missile.

The Site Defense program is presently limited to a prototype demonstration to provide an option to defend the Minuteman force against a higher threat than Safeguard can accommodate. Site Defense, except within certain limitations, could not be deployed under the provisions of the ABM Treaty except at the National Command Authority (NCA) site. It, therefore, constitutes simply a hedge in the event that the treaty is violated by the Soviets, or if the United States deems it necessary to abrogate the treaty in the interest of its strategic deterrent posture. In plain words, Site Defense is an insurance policy, albeit a very expensive one.

Committee Considerations

This program has now slipped a full year, and the demonstration date is now scheduled a year later. If this program were pursued through full scale development and deployment, this could be accomplished with the completion of the first operational site two years after the demonstration. Last year the importance of completing this program at the same time as the interim agreement expired was emphasized by the Army in justifying the amount requested. Since the Department of Defense now proposes a delay in schedule, this date has lost its significance. It is less important, therefore, to complete the prototype demonstration program by a specific date than it is to proceed at a minimum but constructive dollar level to avoid the expenditure of substantial dollar amounts if the decision should be made later to terminate this program.

The dollar implications of this program are also a matter of concern. If this program is carried out through complete development, this will cost some $1.7 billion. If the decision is made to deploy this system, an investment of some $2 billion to $2.5 billion would be required to protect Minuteman against a limited near term threat. Supporting this program at the level of $100 million of fiscal year 1974 funds will delay the first Site Defense operation two or more years after the demonstration. If it becomes necessary to accelerate this program, this can be done just as readily as it was delayed.

The Army has stated that if the decision to reduce fiscal year 1974 funding had been known prior to the beginning of that fiscal year, the program could have been adjusted but with slippage and increased cost, provided the program was continued through completion. This reduced level of funding will be adequate to retain and support the contractors' development team.

The reduction of $70 million also denies the proposal to apply $5 million to conduct studies for deployment of a National Command Authority (NCA) site. The need to expend funds for such purpose has not at this time been demonstrated since the program is limited to a prototype demonstration. Such a study could be conducted to some degree in house, if necessary.

LIGHT AREA DEFENSE SYSTEM (LADS)

Committee Recommendation

The committee recommends termination of the Light Area Defense program and denial of the $42.4 million requested for this purpose.

Background

The objective of this program is to develop the capability to provide a light area defense of the United States against accidental or unauthorized ICBM attack by the Soviets and from attack by an emerging nuclear nation such as the Peoples Republic of China (PRC).

This program has been pursued until now essentially as a technology program. The total estimated cost for advanced development alone, excluding follow-on engineering development, approaches $300 million.

At the request of the Army, a Light Area Defense Study was conducted from April through December, 1972, by a study group comprised of government, industry and non-profit organizations.

The study concluded that:

1. There is sufficient motivation to consider seriously light area defense of the United States.
2. Accidental or unauthorized attack by the Soviet Union is a primary concern.
3. The threatened use of nuclear weapons by the PRC or other emerging nations in pursuing an advantage in non-nuclear confrontations must be inhibited.
4. Research on LAD can be conducted within the limitations of SALT I and deployment might be permitted under a negotiated modification of these agreements.
5. Estimated cost to develop and deploy LAD against small numbers of ICBM's or long range submarine launched ballistic missiles (SLBM's) amounts to between 1.5 and 3.0 billion dollars.
6. The short range, depressed trajectory SLBM threat is sufficiently different in nature from the ICBM threat that no single light area solution is applicable to both.

Committee Considerations

The ABM treaty precludes the deployment of this system. Therefore, research and development would be conducted solely to provide a hedge to be deployed only if the treaty was abrogated. If the treaty is not abrogated it is simply insurance.

The overwhelming strategic nuclear superiority of the United States, while it would not preclude an accidental attack, should deter a PRC nuclear threat well into the 1980's. If such a threat begins to develop there would be ample time to take the necessary steps to counter it.

There are also serious technical questions as to whether a light area defense would be effective in countering either a small attack from the Soviet Union or a nuclear threat by the Chinese.

In its thorough review of the Safeguard program in connection with the fiscal year 1971 bill, the committee examined the value of an area defense directed primarily against the Chinese and, in its Report No. 91–1016, page 19, concluded:

"Present circumstances do not justify a diversion of our resources from the primary task of defending the deterrent to the less urgent objective of providing a defense against the evolving Chinese Communist threat. Whether the development of a thin area defense is a wise response to a future Chinese nuclear capability remains to be demonstrated."

That statement was made before SALT I and the committee believes it is still valid today, especially since we have dramatically increased our strategic deterrent capability by adding MIRV to Minuteman and Poseidon, and SRAM to our B–52 inventory. The Trident will add substantially to this invincible force. PRC advances have not kept pace with this progress, nor will the Soviets threaten this capability for the foreseeable future.

Conclusion

In summary, the committee is convinced that major emphasis in research and development for support of the strategic mission should be placed on the strategic offensive capability. Research and development on strategic defensive capability, consistent with the ABM Treaty, should, with completion of deployment of Safeguard at Grand Forks, be structured to include a Site Defense demonstration program and a technology program in advanced ballistic missile defense. The committee recommendations for fiscal year 1974 are in accord with this objective.

SAM–D WEAPON SYSTEM

Committee Recommendation

The committee recommends approval of the full $194.2 million requested to continue engineering development of the SAM–D weapon system. This is one of the Army's top priority programs.

Description

SAM–D is an advanced surface-to-air missile weapon system which is planned to replace both the Nike Hercules and the Improved Hawk missiles in providing air defense of the Army in the field and air defense of the continental United States. In the field Army, SAM–D defenses will be complemented with short range, low altitude, forward area air defense weapons and will be integrated with the Air Force in the overall air defense of the theatre of operations. In the continental United States, SAM–D will defend high value complexes and areas along the periphery of the United States and will be integrated with other continental air defense forces.

SAM–D will provide a marked increase in performance capability as compared with either of the systems which it will replace. It will be able to engage more targets simultaneously, be more effective against jamming electronic countermeasures and maneuvering targets, and relieve the pressure of high military manpower costs by permitting significant reductions in the number of troops required to operate the system. There is no other weapon system under development which can satisfy these requirements.

Background

Last year the committee, in recommending approval of the full $171.4 million requested for fiscal year 1973, made the following observations in its report on the Military Procurement Authorization bill (Report No. 92–962, page 40).

> The committee considers approval of the $171.4 million does not constitute a commitment to production. Technical progress and development costs will be closely monitored to insure that the expenditure of these funds in addition to the $386.9 million provided previously clearly supports further development efforts. In this regard, the Army is encouraged to continue its efforts to manage this program in an austere and closely controlled manner.

The Army has complied fully with this direction, and thus far has managed this program with a high degree of competence. The contractor's team also deserves high marks for their accomplishments to date.

During the floor debate on last year's bill, an amendment was introduced to delete all of the funds requested by Defense and recommended by the committee for fiscal year 1973. However, the amendment was withdrawn after an understanding was reached that a thorough review of the program would be conducted in conjunction with the review of the fiscal year 1974 request, including separate, formal hearings. The committee has satisfied this commitment completely.

Review by the General Accounting Office

The committee also requested the General Accounting Office to conduct a review of the SAM-D program. Their report, which raised a number of questions that have been satisfactorily answered by the Army, is printed in Part 5 of the printed hearings on the fiscal year 1974 bill.

NATO Interest

Allegations have been made in the past that there was a lack of interest by our NATO allies in participating in the SAM–D program. The committee explored this matter and determined as follows:

1. Development of SAM–D is being conducted unilaterally by the United States. In fact, security classification precluded discussion with these other countries until December 1971. Since then, they have attended a number of briefings and continue to show interest in the program.

2. The NATO countries regard the present SAM–D configuration as complex and expensive, although they agree that there is a need for an advanced surface-to-air missile due to the increased threat generated by electronic countermeasures and longer range air-to-surface missiles.

3. Several NATO countries have indicated that they will not undertake unilateral national development of a medium to large SAM, and that it is clearly an important field for cooperation.

4. SAM–D may be relevant to their desired system and that such possibility should be explored.

Conclusions

In recommending approval of the $194.2 million requested, the committee emphasizes that this does not constitute a commitment to production, but merely the next step in an orderly development program. The program is progressing satisfactorily; it is on schedule; it is within cost estimates; and no known major technical problems are unresolved. Moreover, the program has been reduced in total estimated cost by some $759 million, from $5.24 billion to $4.48 billion primarily by reducing quantities of equipment required but also by deleting certain unnecessary features.

TRIDENT

Committee Recommendation

The committee recommends authorization of the full $1,527,400,000 to continue development and construction of the Trident Submarine Launched Strategic Weapon System, as proposed by the Navy. This amount is distributed by appropriation as follows:

	Amount (in millions of dollars)
Research, development, test and evaluation:	
Trident I Missile	529.0
Trident Submarine	125.6
Total R.D.T. & E	654.6
Procurement:	
Ship Construction, Navy (SCN)	867.8
Weapons procurement, Navy (WPN)	5.0
Total procurement	872.8
Total recommended	1,527.4

Description of Program

The fundamental and primary function of the military services is to deter nuclear attack in the first instance and to protect the United States and its population if attacked. The submarine based strategic missile system is one of the three elements which comprise the U.S. strategic deterrent force, usually referred to as the Triad, which bears this responsibility. The Polaris/Poseidon fleet has been highly successful in this role since 1959 when the first submarines became operational. The Minuteman and Titan land based Intercontinental Ballistic Missiles (ICBM), and the B–52 strategic bomber have provided the other two essential elements of this force.

Trident was conceived to make the submarine based strategic missile force relatively invulnerable to the broad spectrum of potential future threats. It is designed both to improve the capability of the existing Polaris/Poseidon fleet and to replace them.

Trident consists of two major subsystems: primary strategic missile system, and the submarine system. Both will utilize the latest ad-

vances in technology and be designed to increase employment flexibility, significantly reduce vulnerability of submarine, enhance survivability of payload delivered, and greatly expand the dimensions of the U.S. counterstrike force.

The Trident submarine, which is planned to become operational in 1978, will be nuclear powered, capable of carrying up to 24 missiles, and substantially larger and more capable than the Polaris/Poseidon submarines. Initially it will encompass the Trident I (C–4) missile but is designed to accommodate a larger diameter, and longer range Trident II missile if and when developed.

The Trident I missile, which is planned to become operational in 1978, is being developed to give a range of about 4,000 miles, with payload and accuracy equivalent to the Poseidon missile. It will be capable of being backfitted on the 31 existing Poseidon submarines, thus increasing the weapon system capability. It will be equipped with an improved ballistic reentry vehicle and will be compatible with an advanced reentry vehicle.

The Trident II missile, for which development is not proposed to begin in fiscal year 1974, will be larger than Trident I and use the growth space available in the Trident submarine tube. Development will be based on the technology derived from the Trident I missile so that it will not be proposed for initiation until the Trident I development is well in hand.

Background

The oldest of the present fleet of 41 Polaris/Poseidon submarines became operational in 1959, so that they will begin to reach 20 years of age in 1979 when the first Trident submarines are planned to become operational. The oldest Polaris submarines are even now showing the effects of age. From the nature of their continuous operations, with two different crews rotating to keep the submarines on station, wear and tear exceeds that of most other ships. While it may be probable that these submarines will provide safe and economic operation for 25 years or more, and Navy maintenance efforts are geared to provide as long a life as possible, such life in a vital strategic systems role cannot be guaranteed.

Limitations on Polaris/Poseidon Fleet

There are absolute limits to the improvements which can be made in the present ships. Growth potential provides only for modest improvements in quieting, sonar, or missiles. The Navy has testified that it is not economically realistic to convert the first ten Polaris to Poseidon, and that introduction of the Trident I missile in the remaining 31 ships will use all of the missile growth potential. Significant noise reduction to maintain a lead against anticipated Soviet acoustic technology requires the radically different and quiet propulsion plant planned for the Trident submarines This cannot be backfitted in the existing submarine fleet.

Implications of SALT

The five-year interim strategic arms agreement reached with the Soviets in May 1972 limits the number of submarine ballistic missile launchers to 710 and the number of ballistic missile submarines to 44. The significance of this restriction is that the Trident submarine may

replace the Polaris/Poseidon submarine, each of which has 16 launchers, on a one for one basis, except that this would limit the number of launchers on each Trident submarine to 16. Since the Navy plans to build Trident with 24 launchers each, the total number which would be allowed under the interim agreement would be 29. This is 12 less than the 41 submarines now in the fleet.

The committee raised this question last year because of the concern that more submarines with fewer than 24 launchers each would provide a more survivable and therefore more credible deterrent force. The committee recognizes that this situation may change as a result of SALT II negotiations or upon the expiration of the interim agreement. The Navy has testified that the determination of the number of launchers may be considered independently for each submarine, and that the Trident submarine design will accommodate quantities down to 16 launchers on a modular basis without otherwise disturbing construction of the submarine.

Acceleration Issue

The need for the Trident submarine as an ultimate replacement for Polaris/Poseidon has not been and is not now at issue. The controversy of last year, and again this year has centered on the question of when it is required to be deployed.

Last year the committee rejected the recommendation of the Research and Development Subcommittee to slow the accelerated program back to the original schedule which would have been three to four years later than the 1978 Initial Operational Capability (IOC) date. The Senate and the Congress sustained the committee in supporting the accelerated program for fiscal year 1973. A floor amendment to slow the program was defeated on a roll call vote.

This year the Research and Development Subcommittee, in an effort to explore a range of alternative schedules and provide the committee with several options to the continued accelerated program, requested the Department of Defense to provide alternative cost estimates and schedules. These were reviewed and explored in formal hearings held by the subcommittee. This resulted in the recommendation by the subcommittee that the Trident I missile be developed as proposed in order to permit backfit into the Poseidon submarine, but that the Trident submarine IOC be delayed by approximately two years to 1980. This would have reduced the fiscal year 1974 request by $885.4 million.

The committee rejected this recommendation by an 8 to 7 vote, and supported the full request for $1.527 billion to continue with the accelerated program as strongly justified by the Department of Defense.

Use of Funds Recommended for Fiscal Year 1974

The $1.527 billion will provide for the following effort:

(*a*) $529.0 million to continue engineering development of the Trident I missile including the ballistic reentry vehicle and concurrent advanced development of an advanced reentry vehicle. (R.D.T. & E.)

(*b*) $125.6 million for continued development of the lead (prototype) submarine, including completion of the submarine mock-up, initial

test procedures, submarine installed subsystems, and equipment construction and test. (R.D.T. & E.)

(*c*) $586.8 million for full funding for the lead Trident submarine. (SCN)

(*d*) $281.0 million to complete procurement of long lead ship components for the first three follow ships initiated in fiscal year 1973, and to initiate procurement of long lead components for six additional follow ships for which it is planned to request authorization in later years. (SCN).

(*e*) $5.0 million for initial engineering planning required prior to architectural and engineering design in support of an explosive weapons area for missile production at the proposed refit facility. (WPN)

Conclusion

The committee recognizes the vital importance of this weapon system, which is estimated to cost some $12.8 billion for a fleet of 10 as presently approved by the Department of Defense. At $1.3 billion each, which includes the cost of research and development, procurement, construction and support this may be the most expensive weapon system ever built by the United States. The committee is concerned with the high degree of concurrency which is evident from the plan to have all nine follow-on submarines in various stages of construction before the lead prototype submarine has been completed and fully tested. However, this concern is overshadowed by the conviction of the importance of deploying this fleet at the earliest practicable time.

The committee considers that the question of the number of launchers for the nine follow-on submarines remains open and subject to later consideration, and that 24 launchers are approved at this time only for the lead submarine.

It should be noted that at the present time the approved program is only for 10 systems which is the basis upon which the program has been considered by the committee.

The committee intends to closely follow the development of this weapon system to ascertain its progress against planned milestones and to insure that its costs do not exceed estimates.

AWACS (E–3A)

Authorization Request and House Action

The request was for $197.8 million in R. & D. and $11.7 million in the procurement account for long lead items for a fiscal year 1975 production buy. The House reduced the R. & D. request by $42.0 million and approved the $11.7 million long lead funds for a total of $167.5 million for fiscal year 1974.

Committee Recommendation

The committee recommends a $42.0 million reduction in R. & D., which leaves $155.8 million for R. & D. for fiscal year 1974, and approval of the $11.7 million in long lead funds for a total of $167.5 million for fiscal year 1974.

Program Description and Status

AWACS is an airborne radar warning and command and control aircraft. Its unique and distinguishing characteristics are the capability to identify and track low flying airplanes which would be masked

by ground clutter from ground based or other airborne radar planes, its capability to track automatically a large number of airplanes, and its on-board command and control facilities.

The AWACS program completed a prototype flyoff in 1972 between two competitors for the radar subsystem, with Westinghouse winning over Hughes. Full scale engineering development began in January 1973 following a Defense System Acquisition Review Council review of the prototype radar "brassboard" results. Operational testing to date has included highly successful Air Defense Command exercises with the current air defense fighter force opposing SAC bomber raids and a NATO demonstration in Europe which evaluated the surveillance and command and control potential of AWACS in tactical scenarios. A prototype of the complete AWACS command and control system is scheduled to fly and complete its testing in 1974, and successful demonstration of its operation will be the basis for a full production go-ahead in late 1974. The production airplanes will begin delivery in 1976.

Operational Concept and Force Structure

The AWACS system will be usable in any operating environment where radar surveillance and warning, aircraft offensive and defensive command and control, and overall battlefield monitoring are necessary. These uses include the classical CONUS bomber defense mission, all envisionable tactical combat scenarios, plus other non-combat surveillance applications. The AWACS is being designed with a single "core" configuration which can be adopted rapidly to its differing missions by simple reprograming of its computers, a process which can be accomplished in a matter of hours. The basic core system thus has an inherent flexibility which does not restrict it to any single use or mission.

The current force structure planning for 42 airplanes has a nominal distribution of 25 to CONUS air defense, 10 to the tactical air command, and 7 for the training and airplane overhaul pipelines.

Basis for Committee Position

The committee strongly supports the AWACS program. Testimony this year on combat experience in Southeast Asia showed that AWACS could have replaced EC–121, C–135, and C–130 airplanes, all fulfilling parts of the radar warning and command and control functions, and would be superior in capability to those 3 aircraft combined. The AWACS also will vastly improve the CONUS air defense effectiveness of the present interceptor fleet of F–101, F–102, and F–106 airplanes. To date the AWACS development program has resulted in the system bettering its technical performance goals, completing its milestones ahead of schedule, and underrunning on costs.

An Air Force review of the fiscal year 1974 R. & D. funding requirements, after the budget was submitted, identified a reduction of $42 million without affecting the revised R. & D. schedule. The committee recommends that the request be reduced by this amount.

The committee does believe that the operational flexibility inherent in the common core AWACS could allow the overall quantity to be reduced from the 42 aircraft currently programed, and it urges that this be considered while the production program is being planned.

96-467—73——4

Fiscal Year 1974 Army Aircraft Procurement Request

[In millions of dollars]

	Fiscal year 1973 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
U–21 utility transport			20	12.0	20	12.0	20	12.2			20	12.2	−20	−12.2		
VH–1 utility transport helicopter			6	8.1	6	8.1										
OH–58 observation helicopter	400	33.9														
Item less than $500,000		2.7		2.3		2.3		4.0				4.0				4.0
Modification of aircraft		40.2		55.6		56.6		109.1				109.1				109.1
Aircraft support equipment and facilities		20.2		33.8		28.7		30.6				30.6				30.6
Aircraft spares and repair parts		9.6		16.7		12.9		25.1				25.1		−0.8		24.3
Subtotal	400	106.6	26	128.5	26	120.6	20	181.0			20	181.0	−20	−13.0		168.0
Prior year financing available				−95.0												
Appropriation requiring authorization				33.5				181.0				181.0		−13.0		168.0

TITLE I—PROCUREMENT

ARMY AIRCRAFT

	Millions
Army request	181. 0
Senate committee recommended reduction	−13. 0
Senate committee recommendation	168. 0
House authorization	181. 0

Authorization Request

The Army request for fiscal year 1974 totals $181 million. Included in the request is $12.2 million for 20 U–21/UX utility aircraft. The remainder of the request relates to improvement or support of the existing inventory of Army aircraft including $109.1 million for aircraft modifications, $25.1 million for spares and repair parts, and $34.6 million for other support.

It should be noted that funding is included in the Air Force aircraft request to procure 332 helicopters for payback to Army for assets already provided to the South Vietnam Air Force.

Summary of House Action

The House approved the Army request of $181.0 million.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends authorization of appropriation in the amount of $168.0 million, a reduction of $13 million from the request.

U–21/UX Utility Aircraft −$12.2 million

The committee recommends denial of the request for 20 utility aircraft since the UX utility aircraft approved for fiscal year 1973 are not yet under contract. This is discussed further under "Aspects of the Bill of Special Interest."

Aircraft Spares and Repair Parts −$0.8 million

The Army has informed the committee that a reevaluation shows that these funds are now in excess of fiscal year 1974 funding requirements.

Fiscal Year 1974 Navy and Marine Corps Aircraft Procurement Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1972 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
A-4M Light attack Skyhawk						2.0	24	64.1			24	64.1			24	64.1
A-4M Advance procurement, current year								2.2				2.2				2.2
A-6E All weather attack Intruder	12	89.8	21	146.5	21	146.8	15	128.4			15	128.4			15	128.4
A-6E Advance procurement, current year		3.7		1.7		1.7		1.9				1.9				1.9
EA-6B Electronic warfare Intruder	12	151.3	7	134.8	7	111.7	6	116.6			6	116.6		−15.0	6	101.6
EA-6B Advance procurement, current year		30.1				1.4										
A-7E Medium attack Corsair II	24	73.9	48	155.7	48	160.7	42	166.9			42	166.9		−14.8	42	152.1
A-7E Advance procurement, current year		5.1		7.5		3.7		.8				.8				.8
AV-8A V/STOL Harrier	30	99.9	30	108.3	30	105.4	12	43.3			12	43.3		−6.0	12	37.3
AV-8A Advance procurement, current year		12.0		7.1		8.1										
F-4J Fighter							10	117.6	−10	−117.6						
F-4J Advance procurement, current year								8.0		−8.0				−117.6		
F-14A Fighter/Intereeptor	48	600.8	48	407.8	48	407.8	48	455.0	+2	+139.5	50	594.5	−48	−257.4		197.6
F-14A Advance procurement, current year		84.8		75.7		75.7		75.8		−20.8		55.0		−75.8		
RH-53 Minesweeping helicopter	18	56.3														
VH-53D Helicopter			6	30.1	11	29.6										
VH-3 Helicopter																
VH-3, Advance procurement, current year		1.9														
UH-1N Utility helicopter Iroquois	24	15.7	24	19.1	24	19.1	24	21.0			24	21.0			24	21.0
UH-1N Advance procurement, current year		2.8		1.3		1.3		1.1				1.1				1.1
AH-1J Armed helicopter			20	28.6	20	28.6	20	21.6			20	21.6			20	21.6

AH–1J Advance procurement, current year		1.7		1.3		1.3		.7			.7			.7		.7
P–3C ASW aircraft Orion	24	211.4	12	110.7	12	110.7	12	126.5		12	126.5		12	126.5		126.5
P–3C Advance procurement, current year		35.4		12.7		12.7		8.9			8.9			8.9		8.9
S–3A ASW aircraft carrier based	13	322.0	35	472.4	35	472.4	45	401.4		45	401.4		45	401.4		401.4
S–3A Advance procurement, current year		24.6		61.2		61.2		54.0			54.0			54.0		54.0
E–2C Early warning aircraft	11	227.0	8	129.9	8	129.9	9	141.0		9	141.0		9	141.0		141.0
E–2C Advance procurement, current year		16.7		18.2		18.2										
C–9B medium transport	5	24.3	3	15.6	3	17.0										
CT–39 light transport	2	3.2	5	7.9	5	7.8										
T–2C Trainer aircraft	36	35.0	24	31.3	24	31.3	24	32.1		24	32.1	—24	—25.7			6.4
T–2C Advance procurement, current year		.7														
TA–4J Trainer aircraft	12	20.5														
TAV–8A V/STOL Trainer																
TAV–8A Advance procurement, current year							8	46.8		8	46.8		8	46.8		46.8
(Light) Twin engine medium transport						1.9										
LC–130R Adv. proc., current year		2.0					1	4.9		1	4.9		1	4.9		4.9
EC–130Q Special mission					1	12.1	1	10.2		1	10.2		1	10.2		10.2
EC–130Q Adv. proc., current year						1.3										
KC–130H Tanker							4	25.0		4	25.0		4	25.0		25.0
Modification of aircraft		453.9		299.2		299.2		295.4			295.4			295.4		295.4
Aircraft spares and repair parts		495.9		471.6		476.5		420.7	+6.9		427.6	—47.0		373.7		373.7
Aircraft component improvement		43.0		58.0		61.3		30.1			30.1			30.1		30.1
Aircraft industrial facilities		25.4		28.2		28.6		26.7			26.7			26.7		26.7
Other aircraft production charges		27.4		25.4		29.8		22.4			22.4			22.4		22.4
Common ground equipment		97.2		108.4		111.4		84.5			84.5			84.5		84.5
War consumables				.9		.9		2.7			2.7			2.7		2.7
Subtotal	271	3,295.4	291	2,977.1	297	2,989.1	305	2,958.3	—8	297	2,958.3	—82	—567.3	223		2,391.0
Financing adjustment				—155.0												
Appropriation requiring authorization				2,822.1				2,985.3			2,958.3		—567.3			2,391.0

Navy and Marine Corps Aircraft

	Millions
Navy request	$2,958.3
Senate committee recommended reduction	−567.3
Senate committee recommendation	2,391.0
House authorization	2,958.3

Authorization Request

The Navy request for procurement of aircraft is for $2,958.3 million. This request provides for procurement of 305 aircraft and their associated initial spares for $2,261.3 million and $124.6 million for advance procurement of long lead materials for aircraft programs planned for inclusion in the FY 1975 budget request. The remaining $572.4 million is for aircraft modifications, replenishment spares and repair parts, and for support equipment, component improvement, and similar charges necessary to sustain the aircraft inventory.

The budget request as submitted in January, 1973, included 48 F–14As and 10 F–4Js. This was revised to 50 F–14As and no F–4J procurement, as is described in the discussion on the F–14 in the section of the report, "Aspects of Bill of Special Interest."

Fifteen different types of aircraft are included in the revised request. Individual procurements continue to be in small quantities with 50 F–14As, 45 S–3As and 42 A–7Es being the three largest requests in the FY 1974 program.

The funds and aircraft requested provide some modernization of the Navy and Marine Corps aircraft inventory. However, the size of the inventory continues to decrease while the average aircraft age increases.

Summary of House Action

The House approved the request for $2,958.3 million, as revised to include 50 F–14As.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends authorization of $2,391.0 million for procurement of Navy and Marine Corps aircraft. This is a reduction of $567.3 million from the request, as follows:

F–4J Fighter—$130.7 million reduction

The committee recommends deletion of the entire request for F–4J aircraft. This reduction is consistent with decisions made subsequent to the budget request on both the F–4J and the F–14A aircraft programs and is discussed in the section "Aspects of Bill of Special Interest."

F–14A Aircraft—$374.7 million reduction

The committee recommends approval of $197.6 million and denial of the request for authorization of 48 aircraft. This is discussed in detail under "Aspects of Bill of Special Interest."

EA–6B Prowler—$15.0 million reduction

The budget request submitted included significantly increased estimated unit costs for airframes and avionics over FY 1973. The committee believes the current request was over-budgeted and believes the program can be pursued as planned with a $15.0 million reduction.

A–7E Corsair II—$14.8 million reduction

The request included $9.1 million for initial procurement of the TRAM night attack system. Development has slipped, and the system will not be bought before FY 1975. An additional reduction of $5.7 million is recommended as the addition of Air Force A–7 aircraft will result in reduced cost for the Navy A–7 program.

AV–8A Harrier—$6.0 million reduction

The budget request was based on procurement with an inertial navigation-attack system. Procurement of this system has been canceled, and a simpler and cheaper baseline avionics will be used at a net savings of $6.0 million.

T–2C Trainer Aircraft—$26.1 million reduction

The committee recommends approval of $6.4 million for procurement of simulators for undergraduate pilot training and denial of further procurement of T–2C trainer aircraft and initial spares for the T–2C aircraft.

The committee believes that there are sufficient trainer aircraft assets within the Department of Defense to meet overall undergraduate pilot training requirements without additional procurement of trainer aircraft at this time. This is discussed further under "Aspects of Bill of Special Interest."

DESCRIPTION OF NAVY AND MARINE CORPS AIRCRAFT RECOMMENDED FOR APPROVAL

A–4M (Skyhawk)

The A–4M is a single seat, carrier capable, subsonic divebomber, the latest version of the A–4 series, and is powered by an uprated J52–P408 engine. It is the Marine Corps primary light attack close air support airplane.

The fiscal year 1974 recommendation is for $64.1 million and 24 aircraft. It is the first of a planned three-year procurement of 72 aircraft intended to transition the A–4 inventory to an all A–4M active duty light attack force.

A–6E (Intruder)

The A–6 is the Navy and Marine Corps night and all-weather attack aircraft. The A–6E has modernized avionics systems but otherwise is similar to the combat-proven A–6A. This long-range, twin-jet, subsonic aircraft is capable of accurate navigation and weapons delivery, and its specialized electronics equipment permits it to attack targets day or night under all weather conditions.

The FY 1974 program of 15 aircraft, at a cost of $128.4 million, is to continue a modest inventory modernization program and provide a continued new production capability.

EA-6B (Prowler)

The EA–6B is an electronic countermeasures (ECM) version of the A–6 Intruder and is the only tactical electronic warfare airplane in production in the United States today. A derivative of the A–6A, it is a four place, carrier-based aircraft with integrated high-powered electronic jammers and modern receivers controlled by a computer.

The FY 1974 request was for six EA–6B's at $116.6 million. It is the first of a planned additional procurement totaling 18 new aircraft over three years, which will increase the Navy's operational squadrons to 8. The Navy's goal is 12 squadrons.

A–7E (Corsair II)

The A–7E is a single-place, light attack aircraft for close air support and interdiction missions. It provides a substantial increase in bombing accuracy, combat radius and load carrying capability over previous light attack aircraft. The A–7E has proven itself in Southeast Asia combat missions.

The request was for 42 aircraft and $166.9 million, and the committee recommends 42 aircraft and $152.9 million including $0.8 million for advance procurement. This will permit continuing modernization toward the Navy goal of an all-A-7E light attack force.

AV–8A (Harrier)

The AV–8A is a single pilot, fan jet powered subsonic V/STOL aircraft, which provides the Marine Corps with V/STOL light jet attack close air support capability. Also included in this year's Harrier program is a request for eight two-place trainer versions of the basic Harrier, which will be used for pilot transition training. This is the final planned procurement of Harriers for the Marine Corps and will bring the total to 112 AV–8A's and eight trainers.

The Harrier is discussed in more detail in the section of the report "Aspects of Bill of Special Interest."

UH–1N (Iroquois)

The UH–1N is the latest model of the famous "Huey" helicopter series. The Navy uses the UH–1N primarily for support of Operation Deepfreeze and for search and rescue missions at naval air stations. The Marine Corps use includes command and control mobility for troop commanders, and all weather movement of troops, equipment and cargo in amphibious assault and shore-based operations.

The 24 aircraft recommended are part of a continuing procurement to modernize the Navy and Marine Corps helicopter inventory. The cost is $22.1 million including advance procurement.

AH–1J (Sea Cobra)

The AH–1J is a twin engine version of the Cobra helicopter gunship. It is utilized by the Marine Corps to provide close-in ground fire suppression during aerial and ground escort operations and landing zone preparation.

The 20 aircraft recommended for FY 1974 are part of a multiyear planned procurement through FY 1976. This year's request is for $21.6 million.

P–3C (Orion)

The P–3C is a land-based, long-range, four engine turboprop patrol aircraft. Its primary mission is antisubmarine warfare with secondary missions of aerial mining, maritime surveillance and destruction of coastal shipping.

The 12 aircraft recommended at $126.5 million will transition one additional squadron from the P–3A to the P–3C.

S–3A (Viking)

The S–3A is a fixed wing carrier-based antisubmarine (ASW) search and attack aircraft containing the latest ASW sensors, integrated with a general purpose digital computer. It replaces the old propeller driven S–2 with a modern fan-jet powered aircraft capable of high speed and long range patrolling.

The 45 aircraft requested in FY 1974 at a cost of $401.4 million represent the third production increment and together with previously authorized aircraft will provide for transitioning six fleet squadrons to the S–3A.

E–2C (Hawkeye)

The E–2C is a carrier-based turbo-prop early warning and control aircraft. It provides the Navy with a modern radar early warning, strike control and surveillance capability. The E–2C has the same basic airframe as the earlier model E–2A/B but is equipped with new avionics, including a new radar system.

The nine E–2Cs requested at $141.0 million is the final planned procurement at this time.

(Light) Twin Engine Medium Transport

This is a commercially procured, FAA certified, land-based transport aircraft with an all weather category II capability, powered by two turbofan engines, operating in the transonic speed range. It will provide important logistic support for Marine Corps units and installations. One aircraft is requested at a total cost of $4.9 million, to replace an obsolete C–118 now used for this purpose.

EC–130Q (Hercules)

The EC–130Q is a basic C–130 aircraft, modified for airborne communications, and with increased engine performance generator capacity, and special communications, navigation, and flight instrument systems. It provides an airborne communications relay interfacing with other national Command and Control authorities. The one aircraft requested in FY 1974, at a cost of $10.2 million, will augment EC–130Q's presently in the Navy's inventory and will provide mission available aircraft during modification and improvement programs to mission equipment.

KC–130H (Hercules)

The KC–130H is a modified version of the C–130 aircraft, provided with removable external and internal refueling tanks, whose primary mission is in-flight refueling of Marine fighter and attack aircraft, with capability for tanker ferry missions. With internal refueling equipment removed, it can be used as a cargo or transport plane. The four aircraft requested in FY 1974 at $25.0 million are required to maintain current Marine Corps tanker capability and to provide transoceanic tanker service for Marine Corps and Navy tactical aircraft.

Fiscal Year 1974 Air Force Aircraft Procurement Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
A-7D Tactical Attack Fighter	97	203.7	24	83.2	24	83.2							+24	+70.1	24	70.1
A-7D Advance procurement, current year		5.8														
A-10 (A-X) Adv. proc., current year								30.0				30.0		−30.0		
F-4E Tactical Fighter	36	129.2	48	190.2	48	168.1	24	98.6			24	98.6			24	98.6
E-3A Advance procurement, current year								11.7				11.7				11.7
F-111F Advanced Tactical Fighter	12	112.0	12	151.4	12	151.4			+12	+172.7	12	172.7	+12	+151.6	12	151.6
F-111F Adv. proc., current year		20.1		30.0		30.0										
F-111 over target and proof testing		297.9														
F-5A							116	69.3			116	69.3	−116	−41.0		28.3
F-5B			7	11.9	7	11.9										
F-5E	21	62.4	57	90.4	57	90.4	71	112.0			71	112.0			71	112.0
F-5E Adv. proc., current year		7.1														
F/TF-15A Tactical Fighter			30	421.6	30	421.6	77	801.9	−38	−290.1	39	511.8			77	801.9
RF-4C Tactical Reconnaissance Fighter	12	39.1														
C-5A Prior year unfunded deficiencies and contingency provisions		299.1		107.6		107.6		43.1		−5.9		37.2		−5.9		37.2
C-130E/H Transport	12	40.1	20	90.0	20	90.0	36	180.6			36	180.6			36	180.6
VC-X (707 class) transport			4	19.0	4	19.0										
T-41D basic trainer	3	.1	1		1		3	.1			3	.1	−2	−.1	1	
T-43A navigational trainer	7	40.9	8	46.1	8	46.1										
AABNCP Airborne Command Post			2	69.0	2	69.0	1	32.3			1	32.3			1	32.3
A-37B			60	32.0	60	32.0										
UH-1H utility helicopter			180	53.3	180	53.3	308	96.7			308	96.7	−128	−40.2	180	56.5
HH-53 cargo helicopter			6	20.8	6	20.8										
CH-47 cargo helicopter							24	51.5			24	51.5			24	51.5
VC-137C	1	8.7														
CXX passenger/transport aircraft			14	8.4	14	8.4	16	9.6	−16	−9.6			−16	−9.6		
Modification of aircraft		577.3		465.7		465.7		527.7				527.7		−35.5		492.2
Aircraft spares and repair parts		407.9		541.4		521.0		579.5		−40.8		538.7		−2.1		577.4
Common ground equipment		46.2		54.6		54.6		82.0				82.0		−5.5		76.5
Component improvement		48.1		38.9		38.9		25.9				25.9				25.9
Industrial facilities		16.2		22.7		22.7		23.9				23.9				23.9
War consumables		7.9		15.5		15.5		.9				.9				.9
Other production charges		93.9		74.3		74.3		106.0				106.0				106.0
Classified projects		579.0		44.3		44.3		29.5				29.5				29.5
Subtotal	201	3,042.7	473	2,682.3	473	2,639.8	676	2,912.8	−42	−173.7	634	2,739.1	−226	+51.8	450	2,964.6
Prior year financing available				−443.0												
Appropriation requiring authorization				2,239.3				2,912.8		−173.7		2,739.1		+51.8		2,964.6

Air Force Aircraft

	Millions
Air Force request	$2,912.8
Senate committee recommended addition	+51.8
Senate committee recommendation	2,964.6
House authorization	2,739.1

Authorization Request

The Air Force request for procurement of aircraft is for $2,912.8 million. This provides for procurement of 676 aircraft at a cost of $1,537.4 million, plus funds for aircraft modifications, spares and repair parts, and other support costs necessary to sustain the aircraft inventory.

Of the 676 aircraft, 154 are for the Air Force inventory, including 77 F–15 and 24 F–4E combat aircraft. No ground attack airplanes were included in the request. The other 422 aircraft include 187 F–5s and 3 T–41s, to enhance the capabilities of our allies, and 332 Army helicopters to replace those given to South Vietnam as part of the Vietnamization program.

Summary of House Action

The House made two changes to the initial request, as follows:

F–15—Reduced the request for 77 aircraft and $918.5 million for procurement including initial spares to 39 aircraft and $587.6 million for procurement including initial spares.

F–111—Added 12 F–111s and $172.7 million for procurement including spares and support.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends authorization of $2,964.6 million for procurement of Air Force aircraft. This is a net addition of $51.8 million to the request, composed of the following changes:

F–5A, −$41.0 million reduction

Funds totaling $69.3 million were requested for payback to MAP for 116 F–5As loaned to South Vietnam. $28.3 million is identified as the FY 1974 requirement for F–5E procurement for Taiwan. The remaining $41.0 million has already been funded, or reimbursement is not required. The committee points out that this is a funding transaction, and no *new* F–5A aircraft are to be procured.

A–10 (A–X), −$30 million reduction

All of the $30 million for long lead production procurement was deleted from the request. The A–10 program is discussed in the section of the report, "Aspects of Bill of Special Interest."

F–111, +$158.8 million addition

Although not in the Air Force request, funds were added for procurement of 12 F–111F aircraft to keep the production line open until

a replacement aircraft enters development. The House added $172.7 million, and the committee reduced this by $13.9 million. This amount is start-up cost incurred because the $30 million in long lead funds, authorized last year by Congress, was not placed on contract in time to prevent a gap in the F–111 production. The committee directs the Air Force to provide the $13.9 million from other procurement sources.

A–7D, +$70.1 million addition

Although not in the Air Force request, funds were added for 24 A–7D aircraft to keep the production line open until the A–7D and A–X issue is resolved. This is discussed in the section of the report, "Aspects of Bill of Special Interest."

C–5A, −$5.9 million reduction

The committee recommends a reduction of $5.9 million to the request of $43.1 million for the C–5A program. The committee was advised that a reevaluation of requirements shows that the $5.9 million is not required. The C–5A program is discussed under "Aspects of Bill of Special Interest."

T–41D Basic Trainer, −$0.1 million reduction

Air Force advised the committee that two of the aircraft requested for Laos under the MASF program were no longer required.

UH–1H Utility Helicopter, −$40.2 million reduction

The committee recommends deferral of procurement of 128 of the 308 UH–1H helicopters requested until fiscal year 1975. The amount of reduction is $40.2 million.

CXX Aircraft, −$9.6 million reduction

The committee recommends denial of the request for 16 aircraft since the fiscal year 1973 program is not under contract. This is discussed further under "Aspects of Bill of Special Interest."

Aircraft Modifications, −$35.5 million reduction

The committee recommends reduction in the aircraft modification account of $35.5 million.

The committee recommends reduction of $15.5 million in a B–52D modification program to enable the Air Force to get back on a normal modification kit procurement cycle which has been disrupted by a late program start.

The committee also recommends a reduction in the Air Force account for contingency modifications by $20 million. The committee reduced this account last year for both the Navy and the Air Force; however, the Air Force account was partially restored in conference. In fiscal year 1974 the Air Force is the only service with this account, and it is noteworthy that the Air Force does not show this account in future years' planning. The committee's action in deleting this "contingency" account is consistent with action taken last year. It is again noted that the account is being used to start new major programs, and there is sufficient flexibility in the overall modification account to request of the committee reprograming approval for any contingency or unforeseen modification requirement.

The committee again wishes to stress the need for management of the modification account at a reasonable level and has noted some improvement in that direction.

Aircraft Spares and Repair Parts, −$9.3 million reduction

A reevaluation of requirements by Air Force indicates that $9.3 million initially requested for spare engines for the C–130 aircraft is in excess of requirements.

Common Ground Equipment, −$5.5 million reduction

Subsequent review by Air Force indicates that the $5.5 million recommended for reduction is excessive to the fiscal year 1974 requirements.

DESCRIPTION OF AIR FORCE AIRCRAFT RECOMMENDED FOR APPROVAL

F/TF–15A (Eagle)

The F–15A is an air superiority fighter aircraft characterized by a high thrust-to-weight ratio and low wing loading for maximum maneuverability. It is designed to be superior to all present and currently projected Soviet aircraft through the 1980 time period. The Air Force request is for 77 aircraft at a total cost of $801.9 million to complete procurement of aircraft for the first wing. The F–15 program is discussed in the section of the report, "Aspects of Bill of Special Interest."

F–4E (Phantom II)

The F–4E is a two-place, twin tactical fighter for counterair, interdiction and close support. It is the latest version of the F–4 series, featuring maneuvering slats for increased air-to-air combat capability and an improved cockpit configuration.

F–5E (International Fighter)

The F–5E is the latest version of the F–5 series of Freedom Fighters. It has more powerful engines, carries more fuel, and has more wing area than earlier F–5s, which increase its air-to-air fighter capability. The 71 aircraft requested at $112.0 million will provide for replacement of Vietnam Air Force F–5As with F–5Es.

F–111F

The F–111F is a variable sweep wing, twin jet, supersonic tactical aircraft used for long range interdiction, with a night and bad weather attack capability. The 12 aircraft recommended will provide attrition replacements for the F–111 force.

A–7D (Corsair II)

The A–7D is a single seat, single engine light attack divebomber for close air support and interdiction missions. It is essentially the same airplane as the A–7E used by the Navy. The 24 aircraft recommended will provide for accelerated modernization of the Air National Guard force.

E–4A (Advanced Airborne National Command Post)

The E–4A is a Boeing 747 commercial transport modified with special equipment to serve as the national emergency airborne command post for the national command authorities and as the airborne command post for the Strategic Air Command. It will replace the present EC–135 used for this purpose, providing twice the endurance and carrying double the command staff of the earlier airplanes. The

single E–4A requested for $32.3 million will complete an interim program of 3 new aircraft which will use the same mission equipment as the earlier EC–135.

C–130E/H (Hercules)

The C–130 is a four engine turboprop powered tactical transport aircraft. It is capable of tactical intra-theater airlift, utilizing forward basing in the combat area as required, and also has sufficient range to augment strategic inter-theater airlift if required. The 36 aircraft recommended for $180.6 million are to replace C–130s transferred to South Vietnam.

T–41D (Mescalero)

The T–41D is a small single-engine piston airplane, essentially a Cessna 182, used as a basic flight trainer. The aircraft recommended will be used for pilot training of free world forces in Southeast Asia and will complete all known requirements at this time.

UH–1H (Iroquois)

The UH–1H is the standard Huey small troop transport helicopter used by the Army. The 180 aircraft recommended at a cost of $56.5 million are to replace Army assets turned over to the Vietnamese as part of the Vietnamization program.

CH–47C (Chinook)

The CH–47C is the Army's standard medium troop lift helicopter. The 24 aircraft recommended at a total cost of $51.5 million are to replace U.S. Army helicopters provided to the Vietnamese Air Force.

FISCAL YEAR 1974 ARMY MISSILE PROCUREMENT REQUEST

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt
Sprint missiles		179.2		76.6		76.6										
Spartan missiles		169.9		69.6		69.6										
Ground equipment		263.0		139.1		138.5										
Safeguard production base support		.4		.1		.7										
Safeguard repair parts and spt. mtl		26.5		14.6		14.6										
Subtotal Safeguard		639.0		300.0		300.0		159.0		−25.7		159.3		−25.7		159.3
Chaparral missile		.2														
Dragon missile		15.3		56.5		56.5		68.5				68.5				68.5
Hawk missile		89.5		106.0		106.0		104.8				104.8				104.8
Honest John		.6		.9		.9		.5				.5				.5
Lance missile		81.1		90.1		92.6		83.7				83.7		−4.7		79.0
Pershing missile		43.7		31.3		28.0		53.8				53.8		−4.5		49.3
TOW missile		55.0		45.0		42.5		57.9				57.9				57.9
Pershing modifications		18.3		16.1		18.3		8.4				8.4				8.4
Other missile modifications		25.0		11.3		9.4		2.0				2.0				2.0
Spares and repair parts		22.2		25.7		25.7		17.0				17.0				17.0
AN/TSQ–73 Air def. cmd. and control						1.9		10.5				10.5		−4.3		6.2
Air defense moving target simulator		2.8														
Air defense targets		1.1		5.1		4.7		4.7				4.7				4.7
Forward area alerting radar		28.0				.9										
AN/TPX–46 interrogator set		5.9		8.0		2.7										
AN/TPX–50 interrogator set				1.3		2.0										
Land combat support system		2.0		4.0		4.0										
Items less than $500,000		1.1		.4		.4		.2				.2				.2
First destination transportation		.8		.8		.8		1.0				1.0				1.0
Production base support		1.7		2.2		2.2		1.9				1.9				1.9
Subtotal		1,033.3		704.7		699.5		599.9		−25.7		574.2		−39.2		560.7
Prior year financing available				−36.5												
Appropriation requiring authorization				668.2				599.9		−25.7		574.2		−39.2		560.7

Army Missiles

	Millions
Army request	$599.9
Senate committee recommended reduction	−39.2
Senate committee recommendation	560.7
House authorization	574.2

Authorization Request

The FY 1974 request for authorization of appropriations for the procurement of Army missiles includes the cost of missiles, modifications, and spare parts. Also included in this account are air defense targets and command and control units. The major items in this request are the Dragon, Hawk, Lance, Pershing, and TOW missiles, as well as continued funding for the Safeguard system.

Summary of House Action

The House approved a total of $574.2 million for Army missiles. This action reflected a deletion of $25.7 million from the budget request for Safeguard.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends authorization of $560.7 million for Army missiles. This recommendation represents a reduction of $39.2 million below the request as follows:

Safeguard, −$25.7 million reduction

The committee recommends approval of $159.3 million in procurement for the Safeguard program for fiscal year 1974. This is a reduction of $25.7 million from the request. The Army has advised that a reexamination of program requirements indicates that the $25.7 million will not be required.

Lance Missile, −$4.7 million reduction

The committee recommends deletion of $4.7 million requested for adaption kits for allies. Included in the FY 1974 budget request was funding for two battalion equivalent of nuclear adaption kits for allies. The committee is of the opinion that all of these funds are not required in fiscal year 1974.

Pershing Missile, −$4.5 million reduction

The Committee recommends deletion of $4.5 million that had been included in the request as a contingency fund to stretch out the U.S. deliveries to maintain a warm production base through FY 1975. The Committee is of the opinion that the contingency funding should not be provided.

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AN/TSQ–73 Air Defense Command and Control System, —$4.3 million reduction

The Committee recommends deletion of $4.3 million that had been requested for a slow rate of initial production. The reason for this recommendation is that sufficient testing has not been accomplished to warrant beginning production in this fiscal year.

DESCRIPTION OF ARMY MISSILES RECOMMENDED FOR APPROVAL

Dragon Missile

The Dragon is a man-portable antitank weapon system to be employed at the infantry platoon level. It is launched recoillessly and wire guided to the target by a tracker. The weapon is comprised of a "Round" made up of a launcher and a missile, both expendable, and a non-expendable tracker.

Improved Hawk

The Improved Hawk is an all-weather defense system for the field Army providing defense against low and medium altitude supersonic aircraft. This Improved Hawk version will provide faster reaction time, greater range, and increased lethality.

Lance Missile

The Lance is a surface-to-surface missile system which will provide the Army improved nuclear fire support to attack targets in the intermediate range between cannon artillery and the Pershing system. Lance will replace the Honest John rocket and the Sergeant missile systems. Lance has utility at chosen ranges and in situations where the effects of its warhead are a special consideration. Lance will fill the gap against high priority targets previously covered by the Honest John and Sergeant systems at division and corps levels. Surface-to-air missile sites, command posts, nuclear storage sites and ammunition storage areas are priority type targets for this system.

Pershing Missile

The Pershing is a two stage, solid propellant, inertially guided ballistic missile with a selective range capability. This system was originally developed for general support of the field army. A Quick Reaction Alert (QRA) mission as a part of the NATO nuclear strike force has since been added. The capability of the Pershing to hit targets beyond the range of the Lance missile system provides a significant increase in depth and area coverage of the battlefield. The minimum range of the Pershing prohibits attacking targets at less than 160 kms and thus cannot be used in lieu of the Lance, a much more inexpensive system.

TOW Missile

The TOW is a heavy antitank/assault weapon consisting of a launcher, a missile, and various ground support equipment. It is deployed at the battalion level.

AN/TSQ–73

The AN/TSQ–73 is a micro-miniaturized, largely automated air defense command and control system, which coordinates air defense activities of the Improved Hawk, and Nike Hercules batteries against hostile aircraft and exchanges target information with other services.

Fiscal Year 1974 Navy Missile Procurement Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
Ballistic missiles:																
UGM-27C Polaris		15.9		13.7		12.5		2.3				2.3				2.3
UGM-73A Poseidon		296.8		287.7		273.3		211.0				211.0		−35.6		175.4
UGM-73A Adv. proc. current year		29.3		34.8		16.4		39.8				39.8				39.8
TRIDENT (ULMS)								5.0				5.0				5.0
Air-to-air missiles:																
AIM-7E/F Sparrow		40.0		31.1		31.1		38.5				38.5				38.5
AIM-9H Sidewinder		12.1		12.1		12.1		16.3				16.3		−1.5		14.8
AIM-54A Phoenix		91.1		89.3		89.3		92.5				92.5				92.5
Air-to-ground missiles:																
AGM-87A Bulldog														+12.5		12.5
AGM-45A Shrike		7.7		27.0		27.0		10.6				10.6				10.6
AGM-53A Condor				13.0		13.0		22.7				22.7				22.7
AGM-78D Standard ARM		1.0		39.8		39.8		.5				.5				.5
AGM-84A Harpoon Adv. proc. current year								19.0				19.0		−4.9		14.1
Surface-to-air missiles:																
RIM-24B Tartar				3.9		4.0		3.4				3.4				3.4
RIM-66A Standard MR		29.8		31.1		34.0		29.1				29.1				29.1
RIM-2E Terrier				3.9		4.1		3.4				3.4				3.4
RIM-67A Standard ER		32.2		15.6		12.7		9.7				9.7				9.7
RIM-8G Talos				5.8		5.9		4.0				4.0				4.0
RGM-66D Standard SSM								7.7				7.7				7.7
Other:																
UUM-44A SUBROC				1.8		1.8		1.7				1.7				1.7
Aerial targets		38.4		36.8		36.5		31.9				31.9				31.9
Modification of missiles		28.0		13.6		20.8		7.9				7.9				7.9
Missile spares and repair parts		29.8		16.1		13.8		16.0				16.0				16.0
Missile industrial facilities		12.6		11.2		10.6		9.9				9.9				9.9
First destination transportation		4.1				3.7		2.9				2.9				2.9
Astronautics		2.1		3.4		2.9		3.6				3.6				3.6
Fleet satellite communications		.2		27.5		31.1		90.8				90.8				90.8
Other missile support		16.6														
Subtotal		687.7		719.2		696.4		680.2				680.2		−29.5		650.7
Prior year financing available																
Appropriation requiring authorization								680.2				680.2		−29.5		650.7

Navy Missiles

	Millions
Navy request	$680.2
Senate committee recommended reduction	−29.5
Senate committee recommendation	650.7
House authorization	680.2

Authorization Request

The authorization request of $680.2 million for Navy missiles includes procurement of fleet ballistic missiles, air-to-air, air-to-surface, and surface-to-surface missiles, aerial targets, and missile modifications and spares and other related charges. In addition, astronautics and fleet satellite communications are provided for in this account.

Summary of House Action

The House approved the request for $680.2 million. House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends authorization of $650.7 million, a net reduction of $29.5 million composed of the following changes:

Poseidon, −$35.6 million reduction

The committee recommended this reduction because some of the missiles planned for procurement in this fiscal year would not be required based on revised Navy planning made subsequent to the budget submission.

Harpoon, −$4.9 million reduction

The request included $19.0 million in advance procurement anticipating a fiscal year 1975 pilot production request for the Harpoon cruise missile. Navy planning called for a high missile production rate at an early stage of the program. The committee reduced $4.9 million of the request associated with high volume rate tooling and recommends that the initial production rate be kept low until operational testing verifies the production design.

Sidewinder, −$1.5 million reduction

This amount was requested for long lead procurement of the -9L version of Sidewinder. The committee deleted the entire amount and will consider a production request only after the Sidewinder/Chaparral issue has been resolved by the Defense Department. This is discussed in the section of the report "Aspects of Bill of Special Interest."

Bulldog, +$12.5 million addition

This amount was added by the committee to begin production of the Bulldog laser guided close support missile. This is discussed in the section of the report, "Aspects of Bill of Special Interest."

DESCRIPTION OF NAVY MISSILES RECOMMENDED FOR APPROVAL

Poseidon

Poseidon is a strategic ballistic missile capable of launch from a submerged FBM submarine. Poseidon employs technology developed as a result of operational testing and service use of the highly reliable Polaris missile. The principal advantage of Poseidon is its adaptability to overcome a broad spectrum of defenses. The Multiple Independently Targetable Reentry Vehicle (MIRV) will ensure continued effectiveness of the FBM system.

Sparrow

The Sparrow is a medium range, all-weather, radar guided, air-to-air missile used by the Navy and Air Force on the F–4, F–14, and F–15 airplanes. It also is to be used as a surface-to-air missile for Navy and NATO ships. The Navy request includes funds to establish a second production source for the –7F version so it can be procured competitively in future years.

Sidewinder

The Sidewinder is a short-range, heat-seeking, air-to-air missile used on fighter aircraft. The FY 1974 request is to continue production of the –9H solid state version of Sidewinder to maintain a production base and to provide an increment toward the inventory objective.

Phoenix

The Phoenix is a long-range air-to-air missile used on the F–14. Near simultaneous launch and simultaneous guidance of multiple Phoenix missiles is possible against widely-separated aircraft or missile targets in an all-weather and heavy ECM jamming environment. The FY 1974 program will continue the build-up of the fleet inventory to support F–14 deployments.

Shrike

The Shrike is an anti-radar air-to-surface missile. Its mission is to destroy or suppress enemy radar systems which control anti-aircraft guns, surface-to-air missiles and other air defense capabilities. It can be launched from A–4, A–6 and A–7 aircraft. The missiles requested in FY 1974 are required to rebuild inventories depleted in Southeast Asia combat.

Condor

The Condor is a long-range air-to-surface cruise missile that will provide a stand-off capability against high priority land and sea targets in heavily defended areas. This is the second year of procurement of Condor missiles.

The request for Condor missile production is for $22.7 million. The committee has been advised that the Navy plans to change the Condor program and to invest a much larger percentage of the funds in high rate tooling in the initial production run. The most recent Navy program planning for Condor never would utilize the full production capacity of this tooling and would result in an early closing of the Condor production line. The committee believes that the funds approved should be used to buy missiles and not production tooling,

and directs that the Condor procurement be made in accordance with the program submitted to the Congress. The request for $22.7 million is recommended for approval.

Standard

The Standard missile is used as a medium range and an extended range ship-launched anti-aircraft missile. It also has been adapted for the ship-launched surface-to-surface missile role. The request is for continuing production of the two surface-to-air versions to continue to build the inventory and initial production of the surface-to-surface missile is included.

Aerial Targets

Aerial targets are used for development testing of air-to-air missiles and surface-to-air missiles and also for training firings for both types of missiles. The request includes a number of different types of targets for both purposes.

Fiscal Year 1974 Marine Corps Missile Procurement Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
Improved Hawk system				20.6		20.9		30.1				30.1				30.1
Redeye Hero modification		1.0														
First destination transportation				.7		.6		.1				.1				.1
Spares and repair parts		.2		.6		.3		.4				.4				.4
Items less than $500,000		.7		.2		.3		1.7				1.7				1.7
Subtotal		1.9		22.1		22.1		32.3				32.3				32.3
Appropriation requiring authorization								32.3				32.3				32.3

Marine Corps Missiles

	Millions
Navy request	$32.3
Senate committee recommended reduction	0
Senate committee recommendation	32.3
House authorization	32.3

Authorization Request

The Navy request of $32.3 million for Marine Corps missiles includes $30.1 million for procurement of the Improved Hawk surface-to-air missile and $2.2 million of other charges including spares and repair parts, first destination transportation, and miscellaneous items.

House Action

The House approved the initial request.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation

The committee recommends approval of the $32.3 million as requested.

Description of Marine Corps Missile Recommended for Approval

Improved Hawk

The Improved Hawk is a modernized version of the basic Hawk surface-to-air missile developed by the Army and also used by the Marines. This Marine Corps procurement is handled jointly with the Army's Improved Hawk program.

Fiscal Year 1974 Air Force Missile Procurement Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
LGM-30G Minuteman		476.0		397.8		396.4		401.2				401.2		−45.8		355.4
Minuteman III adv. proc. current year								13.3				13.3				13.3
AGM-45A Shrike		11.8		10.8		11.3		11.0				11.0		−2.2		8.8
AGM-65A Maverick		78.9		61.2		66.1		107.1				107.1		−9.9		97.2
AGM-69A SRAM		221.0		202.5		195.2		136.7				136.7		−5.6		131.1
AIM-7F Sparrow				9.8		9.8		51.5				51.5				51.5
AIM-9L Sidewinder				5.1		5.1										
Minuteman force modernization		269.2		273.6		267.2		253.2				253.2				253.2
Target drones		7.2		7.7		2.4		13.0				13.0				13.0
Modifications		43.4		38.4		36.9		43.4				43.4				43.4
Spares and repair parts		42.6		43.9		41.9		47.1				47.1				47.1
Other support		529.6		615.2		615.1		495.7				495.7				495.7
Standard ARM				39.0		39.0										
Subtotal		1,679.7		1,705.0		1,686.4		1,573.2				1,573.2		−63.5		1,509.7
Prior year financing available				−35.0												
Appropriation requiring authorization				1,670.0				1,573.2				1,573.2		−63.5		1,509.7

Air Force Missiles

	Millions
Air Force request	$1,573.2
Senate committee recommended reduction	−63.5
Senate committee recommendation	1,509.7
House authorization	1,573.2

Authorization Request

The Air Force request for missile procurement is for $1,573.2 million. These funds are for continued procurement of strategic and tactical missiles and also include funds for modifications of in-service missiles, spares and repair parts, other support costs for the operational inventory, and procurement of target drones. Also included are satellites and boosters to support operational space programs.

House Action

The House approved the request of $1,573.2 million.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends authorization of $1,509.7 million, a reduction of $63.5 million from the request. This reduction is composed of the following changes:

Minuteman, −$45.8 million reduction

This reduction in the funding request for the Minuteman program is recommended in order to maintain the same production rate as last year to support an orderly deployment schedule.

SRAM, −$5.6 million reduction

This reduction in the SRAM procurement funding request is possible because negotiations for the FY 1974 procurement had proceeded more favorably than anticipated in the budget request.

Maverick, −$9.9 million reduction

The request was for $107.1 million for procurement of missiles. This total included $8.9 million of unidentified contingency funds and $1.0 million for procurement of support equipment for the A–X aircraft. The committee recommends authorization in the amount of $97.2 million, a $9.9 million reduction.

Shrike, −$2.2 million reduction

The request was for $11.0 million for procurement of three versions of the Shrike missile. One of these versions currently is in development and will not be procured until fiscal year 1975. Since the $2.2 million associated with this procurement is not required until next year, the committee reduced the request by that amount.

DESCRIPTION OF AIR FORCE MISSILES RECOMMENDED FOR APPROVAL

Minuteman

The Minuteman III is a three stage solid propellant ICBM capable of carrying three independently targetable vehicles. This procurement supports the continued force modernization program.

Maverick

This is an air-to-ground missile with a television-type homing guidance system designed for use against fixed or moving tactical targets such as tanks and field fortifications. It has exhibited a high kill probability in operational tests and combat deployment. This is the third year of production.

Shrike

Shrike is an anti-radar missile used as a defense suppression weapon against ground radars. There are several different versions of the basic missile for use against different threat radars. This procurement is to build up war reserve stocks in several of the newer versions.

Short Range Attack Missile (SRAM)

The SRAM is an air-to-ground missile designed to attack enemy targets without the launching aircraft having to penetrate enemy surface-to-air defense envelopes.

Sparrow

The AIM–7F is a radar guided air-to-air missile for use by Air Force F–4 and F–15 air superiority aircraft. It is improved over earlier versions with solid state circuits and a more powerful rocket motor and warhead. It also is used by and is procured jointly with the Navy. The Air Force request for $51.5 million is for missiles, continued operational testing and for the operational inventory.

Target Drones

Target drones are used for R. & D. testing of new missiles and for training missile firings by operational pilots. Special target vehicles are used for both purposes, and also obsolete aircraft are modified to the drone configuration, primarily for R. & D. tests. This year's procurement request for $13.0 million will buy four separate types of targets and drone vehicles.

Fiscal Year 1974 Navy Shipbuilding and Conversion Procurement Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
TRIDENT (nuclear)							1	780.8			1	780.8			1	780.8
Less advance procurement								−194.0				−194.0				−194.0
Net							1	586.8			1	586.8			1	586.8
Advance procurement, current year				311.0		311.0		281.0				281.0				281.0
CVN aircraft carrier (nuclear)							1	956.0			1	956.0			1	956.0
Less advance procurement								−299.0				−299.0				−299.0
Net							1	657.0			1	657.0			1	657.0
CVA advance procurement				299.0		299.0										
SSN–688 submarine (nuclear)	5	878.7	6	1,050.0	6	1,050.0	5	908.2			5	908.2			5	908.2
Less advance procurement		−110.0		−136.0		−136.0		−125.0				−125.0				−125.0
Net	5	768.7	6	914.0	6	914.0	5	783.2			5	783.2			5	783.2
Advance procurement, current year		130.0		125.0		125.0		130.0				130.0				130.0
DLGN guided missile frigate (nuclear)	1	244.6														
Less advance procurement		−45.7														
Net	1	198.9														
Advance procurement, current year																
DD–963 destroyer	7	603.3								+79.0		79.0				
Less advance procurement							7	634.5			7	634.5			7	634.5
Net	7	603.3						−247.0				−247.0				−247.0
Advance procurement, current year				247.0		247.0	7	387.5			7	387.5			7	387.5
SCS sea control ship advance proc								198.3				198.3				198.3
PHM patrol hydrofoil missile: Advance procurement		7.6						29.3				29.3		−29.3		
PF patrol escort			1	191.5	1	202.2		3.9				3.9				3.9
Advance procurement, current year								6.8				6.8				6.8
AOR fleet replenishment oiler	1	66.5														
Less advance procurement		−.1														
Net	1	66.4														
AD destroyer tender			1	83.9	1	103.6										
AS submarine tender	1	113.5	1	79.9	1	112.6										
Less advance procurement		−.1		−15.0		−15.0										
Net	1	113.4	1	64.9	1	97.6										
Advance procurement, current year		15.0														
ATS rescue and salvage ship		2.2	1	31.0												
Service craft		11.9		13.0		2.0		9.0				9.0				9.0
Pollution abatement craft								10.4				10.4				10.4
Total new construction	15	1,922.4	10	2,283.3	9	2,301.4	14	3,083.2		+79.0	14	3,162.2		−29.3	14	3,053.9

CONVERSION															
SSBN Fleet ballistic missile submarine	6	339.4	6	452.7	6	432.6	5	351.5	−3	−149.9	2	201.6	−3	−196.5	2	155.0
Less advance procurement		−111.4		−169.7		−163.7		−121.7				−121.7		−69.1		−52.6
Net	6	228.0	6	283.0	6	268.9	5	229.8	−3	−149.9	2	79.9	−3	−127.4	2	102.4
Advance procurement, current year		134.6		111.0		108.2								+13.8		13.8
AS Submarine tender (SSBN)			1	22.4	1	26.1										
Less advance procurement				−8.4		−8.9										
Net			1	14.0	1	17.2										
Advance procurement, current year		8.8		.3		2.1		8.8				8.8				8.8
DLGN guided missile frigate (nuclear)							1	113.0			1	113.0			1	113.0
Less advance procurement								−30.0				−30.0				−30.0
Net							1	83.0			1	83.0			1	83.0
Advance procurement, current year				30.0		30.0										
DLG (AAW) Guided Missile frigate	2	117.6	1	77.0	1	63.4	2	124.5		−20.0	2	104.5		−35.6	2	88.9
Less advance procurement		−33.0		−30.5		−16.9		−30.8				−30.8				−30.8
Net	2	84.6	1	46.5	1	46.5	2	93.7			2	73.7		−35.6	2	58.1
Advance procurement, current year		26.3		16.1		16.1										
T-AGS advance procurement		.3														
Total conversions	8	482.6	8	500.9	8	489.0	8	415.3	−3	−169.9	5	245.4	−3	−149.2	5	266.1
OTHER																
Outfitting material		45.6		37.6		37.2		41.3				41.3				41.3
Post delivery		71.6		35.4		38.4		26.5				26.5				26.5
Cost growth		262.9		75.9		67.0		138.8				138.8				138.8
Escalation on prior year programs								196.7		−22.7		174.0		−94.6		102.1
Completion of prior year program		114.4		37.5		37.5										
LHA termination		109.7														
Total other		604.2		186.4		180.1		403.3		−22.7		380.6		−94.6		308.7
Subtotal		3,010.2		2,970.6		2,970.5		3,901.8		−113.6		3,788.2		−273.1		3,628.7
Prior year financing available																
Appropriation requiring authorization								3,901.8		−113.6		3,788.2		−273.1		3,628.7

NAVY SHIPBUILDING AND CONVERSION PROGRAM

	Millions
Navy request	$3,901.8
Senate committee recommended reduction	−273.1
Senate committee recommendation	3,628.7
House authorization	3,788.2

Authorization Request

From a total of $978 million authorized and appropriated in fiscal year 1969, the Navy request for shipbuilding and conversion funding has increased annually. The fiscal year 1974 request of $3,901.8 million is the largest since World War II. This amount includes $3,083.2 million for construction of 14 new ships plus advance procurement funding of future new ship construction, $415.3 million for conversion and modernization of existing ships, and $403.3 million for other shipbuilding and conversion program costs.

This year's request compares to the fiscal year 1973 request of $3,564.3 million for shipbuilding and conversion, of which $2,970.6 million was approved.

Summary of House Action

The House approved a Navy shipbuilding and conversion program in the amount of $3,788.2 million. This is a net reduction of $113.6 million procurement as follows:

	Millions
DLGN nuclear frigate advanced procurement	+$79.0
SSBN ballistic submarine conversions	−149.9
DLG guided missile frigate conversions	−20.0
Escalation	−22.7

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

Authorization in the amount of $3,628.7 million is recommended for fiscal year 1974. This is a reduction of $273.1 million from the request of $3,901.8.

Sea Control Ship, −$29.3 million reduction

The committee recommends denial of the request for this new program until such time as the concept has been completely validated and the "optimum aircraft" have been fully defined to include total costs and schedule of availability and justified to Congress. It should be noted that the cost of construction of the ship itself is relatively minor compared to the investment that will be required for development and purchase of "optimum aircraft" to equip the ship.

The Sea Control Ship is intended to be a relatively small and austere ship platform for antisubmarine warfare helicopters and V/STOL aircraft. The ship has a primary mission of convoy escort in areas where the enemy air threat is low. Eight ships are planned at an estimated cost of $1.1 billion. The costs associated with the "optimum aircraft" are not known.

The committee is of the opinion that delivery of this ship, if ultimately approved, should be more closely aligned with availability of the desired aircraft. The committee also believes that consideration should be given to building a larger ship with catapult capability. A larger ship would have increased flexibility to perform either in the defensive ASW role or in an offensive strike role, and a variety of aircraft could be used, including the S–3A, which was designed specifically for carrier ASW work.

SSBN Fleet Ballistic Missile Submarine, —$113.6 million reduction

The request was for $229.8 to complete funding of the last five conversions of fleet ballistic submarines to accommodate the Poseidon missile system. Slippage in earlier submarine conversion programs has resulted in delay of three conversions planned for FY 1974 funding, and the recommended reduction of $113.6 million recognizes the reduced funding requirement for FY 1974.

DLG(AAW) Guided Missile Frigate, —$35.6 million reduction

These conversions are now planned for private shipyards rather than Naval shipyards. The recommended reduction reflects lower cost attributable to private shipyards.

Escalation, —$94.6 million reduction

Of the total recommended reduction, $22.7 million is not required for additional escalation for the LHA program. The remaining reduction reflects funds that are not required for obligation during fiscal year 1974 and, therefore, does not require authorization this year.

The action of the committee should not be construed as a change in the "full funding policy."

Description of Navy Shipbuilding and Conversion Programs Recommended for Approval

CVN Nuclear Aircraft Carrier

The CVN–70 is the third *Nimitz* Class aircraft carrier propelled by a nuclear power plant having two reactors. Its mission is to operate aircraft and engage in attacks on targets at sea and ashore. As an all purpose carrier, the at sea targets will include those submerged as well as afloat.

Authorization and full funding of CVN–70 for $657 million is recommended ($956 million less $299 million previously appropriated for long lead items).

This program is discussed under "Aspects of Bill of Special Interest."

SSN–688 Class Nuclear Attack Submarines

Full funding of five nuclear attack submarines for $783.2 million is recommended ($908.2 million less $125 million previously appropriated for long lead items), and advance procurement of $130 million is recommended for two submarines. These funds may be used only for procurement of SSN–688 nuclear attack submarines in the manner justified by the Navy.

These are follow-on high speed nuclear attack submarines of the SSN–688 class. Through fiscal year 1972, 18 of this class of submarine have been approved.

DD–963 Destroyers

Full funding of seven destroyers for $387.5 million is recommended ($634.5 million less $247 million previously appropriated for long lead items). In addition, $198.3 million for long lead items for the last seven of a 30 ship program is recommended.

This program is vital to replace World War II destroyers that, even though modernized, are not physically capable of carrying the latest electronics and weapon systems.

Service Craft

$9 million are recommended for five fuel oil barges and four large harbor tugs.

These, along with various other craft, are necessary for essential support functions for the fleet.

Pollution Abatement Craft

The $10.4 million recommended will procure ten craft for collection and transport of waste from ships to shore treatment facilities.

Conversion and Modernization

The sum of $266.1 million is recommended for conversion of ships and submarines as follows:

(1) $116.2 million for conversion of two fleet ballistic submarines to accommodate the Poseidon missile ($102.4 million for conversions plus $13.8 million in advance funding for future conversions);

(2) $8.8 million for advance procurement towards conversion of a ballistic submarine tender;

(3) $83 million for conversion of one nuclear frigate; and

(4) $58.1 million for two conventional frigate conversions.

Other Costs

Other costs that are recommended for authorization of appropriations for naval vessels include:

(1) $41.3 million for outfitting material;

(2) $26.5 million for post delivery correction of trial deficiencies in ships;

(3) $138.8 million for cost increases in prior year ship programs; and

(4) $102.1 million for increased escalation.

Fiscal Year 1974 Army Tracked Combat Vehicles Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
Chassis, transporter, bridge launcher, Armored vehicle bridge	60	9.3					90	14.4			90	14.4			90	14.4
Recovery vehicle, light, M578							360	106.3		+4.9	360	111.2	−120	−28.1	240	78.2
M60A1 tank combat, FT, 105mm gun	90	30.1	166	50.9	166	50.8		−6.9				−6.9				−6.9
Less advance procurement		−1.0		−2.0		−1.9										
Net	90	29.1	166	48.9	166	48.9	360	99.4		+4.9	360	104.3	−120	−28.1	240	71.3
Advance procurement, current year		1.9		6.9		6.9		26.6		−13.3		13.3		−13.3		13.3
Trainer, turret for M60A1 tank,, M30A1							34	5.3			34	5.3			34	5.3
Modification of tracked combat vehicles:																
Tr. vehicles lighting kits								1.7				1.7				1.7
M110E2 8 inch howitzer SP								6.6				6.6				6.6
M109A1 155mm howitzer SP		9.0				12.4		6.1				6.1				6.1
Laser rangefinder for M551 Sheridan		1.4		10.5		10.5		11.3				11.3				11.3
M88 recovery vehicle								3.0				3.0				3.0
M60 series tank		8.9		9.8		9.8		13.8				13.8				13.8
M60A2 tank		35.9		102.5		102.5										
Other modifications		6.1														
Modifications under $500,000		1.0		1.3		1.5		.3				.3				.3
Support equipment and facilities:																
Items less than $500,000		.6		.9		.6		1.0				1.0				1.0
Spares and repair parts				1.0		2.6		3.3				3.3				3.3
First destination transportation		2.4		2.6		2.0		3.7				3.7				3.7
Production base support		1.9		2.1		3.1		5.2				5.2				5.2
Subtotal		107.5		186.5		200.8		201.7		−8.4		193.3		−41.4		160.3
Prior year financing available				−56.0												
Appropriation requiring authorization				130.5				201.7		−8.4		193.3		−41.4		160.3

Army Tracked Combat Vehicles

	Millions
Army request	$201.7
Senate committee recommended reduction	−41.4
Senate committee recommendation	160.3
House authorization	193.3

Authorization Request

The FY 1974 request for authorization of appropriations for the procurement of Army tracked combat vehicles includes the procurement of tracked recovery vehicles and M60A1 tanks as well as other modification and support items

Summary of House Action

The House approved a total of $193.3 million for Army tracked combat vehicles. This amount reflects a deletion of $8.4 million from the advanced procurement funding request for the M60A1 tank program.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Change

The committee recommends authorization of appropriations of $160.3 million. The committee agrees with the $8.4 million M60A1 advanced procurement funding deleted by the House action. The committee also recommends an additional reduction of $33 million in the M60A1 tank program as follows:

M60A1 Tank, −$41.4 Million Reduction

The committee agrees with the deletion of $8.4 million from the advanced procurement request because the Army requirement for this funding for product improvements to be incorporated on the M60A1 tank has been delayed.

The reason for the additional $33 million reduction in this program is deferral of 120 tanks from this year's procurement request in order to maintain the M60A1 tank production at the minimum economical production rate of 360 tanks when combined with the Marine Corps procurement of 120 M60A1 tanks starting in FY 1974.

Description of Army Tracked Vehicles Recommended for Approval

M578 Recovery Vehicle

The M578 recovery vehicle is a lightly armored full tracked air transportable wrecker intended to perform the recovery role for vehicles up to 30 tons in the mechanized infantry battalion, self-propelled artillery battalions, and armored cavalry squadrons.

M60A1 Tank

The M60A1 tank is a diesel powered, fully tracked, armored vehicle, with a four-man crew that is normally employed as the primary weapons system in a combined arms force assigned a land combat mission.

Fiscal Year 1974 Marine Corps Tracked Combat Vehicle Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
Amphibious vehicle family:																
Tube F/M 109		0.7				0.7		0.7				0.7				0.7
LVTP-7	420	48.3	241	33.6	216	30.2										
LVTC-7	18	2.8	40	6.6	38	6.3										
LVTR-7	12	2.2	28	4.8	27	4.6										
M-60A1 tank							120	34.6			120	34.6			120	34.6
Less advance procurement							120	−1.7			120	−1.7			120	−1.7
Net						1.7		32.9				32.9				32.9
Advance procurement, current year								5.7				5.7				5.7
Miscellaneous:																
LVT design contract services		3.3		4.3		4.3		2.5				2.5				2.5
1st destination transportation		.5		1.2		1.2		.2				.2				.2
Spares and repair parts		4.5		.9		3.1		2.8				2.8				2.8
Tube for gun, M-109			40	.7												
Items less than $500,000		1.4		2.4		1.9		1.4				1.4				1.4
Subtotal		63.7		54.5		54.0		46.2				46.2				46.2
Appropriation requiring authorization								46.2				46.2				46.2

Marine Corps Tracked Combat Vehicles

	Millions
Marine Corps request	$46. 2
Senate committee recommended reduction	
Senate committee recommendation	46. 2
House authorization	46. 2

Authorization Request

The FY 1974 request for authorization of appropriation contains $46.2 million for the procurement of 120 M60A1 tanks and other miscellaneous equipment including service and support items.

Summary of House Action

The House approved the request.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation

The committee recommends authorization of the $46.2 million as requested. The procurement of the M60A1 tank by the Marine Corps is the first year of procurement intended to modernize the Marine Corps tank fleet.

FISCAL YEAR 1974 NAVY TORPEDO REQUEST

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
ASROC rocket (less payload)				0.6												
Torpedo MK-48	370	153.5		156.5	500	161.4	500	164.3			500	164.3		−5.0	500	159.3
Torpedo support equipment		8.8		9.9		8.8		7.8				7.8				7.8
CAPTOR								11.6				11.6		−11.6		
Mobile target MK-27	2	1.8		1.2												
Mobile target MK-30	11	11.3		8.0	7	8.0	12	8.1			12	8.1			12	8.1
Torpedo MK-48F/C and launch equipment				2.5												
ODALT material				3.0												
Torpedo tube support				3.5												
BARSTUR support				1.0												
Torpedo and related equipment modification		5.5		4.5		6.3		6.2				6.2				6.2
Spares and repair parts		10.9				19.1		21.9				21.9				21.9
Items less than $500,000				1.7												
Subtotal		191.8		192.4		203.6		219.9				219.9		−16.6		203.3
Prior year financing available																
Appropriation requiring authorization								219.9				219.9		−16.6		203.3

Navy Torpedoes and Related Support Equipment

	Millions
Navy request	$219.9
Senate committee recommended reduction	−16.6
Senate committee recommendation	203.3
House authorization	219.9

Authorization Request

The fiscal year 1974 request for Torpedoes and Related Support Equipment is $219.9 million. The primary torpedo program for which funds are requested is the MK–48. This torpedo is a dual purpose antisubmarine, antiship torpedo. It has greater range and higher speed than torpedoes presently in inventory which were designed to counter lower speed snorkeling diesel submarines. Fleet introduction of the MK–48's began February 27 and will continue throughout the 1970's. Sufficient numbers of submarines are presently outfitted to accept the new torpedo which will be loaded onto ships in both the Atlantic and Pacific Fleets in proportion to the submarine population.

The 500 units requested for fiscal year 1974 will allow continued production of this modern, high performance weapon. Funds are also requested for procurement of Captor, an encapsulated mine-like influence-activated antisubmarine warfare weapon system employing a modified MK–46 torpedo.

Summary of House Action

The House approved the Navy request without change.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends approval of $203.3 million. This is a reduction of $16.6 million from the request as follows.

MK–48 Torpedo, −$5.0 million reduction

Committee recommends denial of $5 million requested for procurement of automatic test equipments for support of the MK–48 torpedo until such time as final decisions have been made on the number of support sites and test equipments that will be required to support the MK–48 torpedo program.

Captor, −$11.6 million reduction

The committee recommends denial of the $11.6 million requested for initial production funding of the Captor system. The committee finds that the development of this system is not complete, and the Captor system has not yet been tested. Approval of any production funding for fiscal year 1974 is not warranted in view of the current status of the development program.

Fiscal Year 1974 Army Weapons and Other Combat Vehicles Procurement Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
Weapons and other combat vehicles:																
XM198 medium towed howitzer, 155 mm (APE)								3.5		−3.5				−3.5		
Launcher, grenade 40 mm for M16A1 rifle	20,000	1.4	33,396	2.5	33,396	2.5										
Launcher, incendiary, rocket, 66 mm, M202A1							2,500	1.5			2,500	1.5			2,500	1.5
Machinegun 7.62 mm M219							1,875	8.5			1,875	8.5	−303	−1.3	1,572	7.2
Machinegun M60	7,500	5.1					6,000	4.5			6,000	4.5	−6,000	−4.5		
Laser rangefinder AN/GVS-3	480	3.4	1,020	6.8	1,020	6.4										
Rifle, 5.56 mm M16A1			37,533	3.6	37,533	3.6	31,000	3.1	−31,000	−3.1			−31,000	−3.1		
Target selector group, fire control, XM10 (VULCAN)			60	3.8	60	3.8										
Modification of weapons and other combat vehicles:																
M163/M167 Vulcan air defense 20 mm gun				1.1		1.8		.6				.6				.6
Howitzer, light towed M102								1.8				1.8				1.8
Howitzer, med armored, SP, 155 mm M109A1				12.4								1.0				1.0
Other modifications						.6		1.0				.2				.2
Modifications under $500,000		1.4		2.5		1.5		.2								
Support equipment and facilities:																
Components for special test				.7												
Items less than $500,000		1.0		.6		.8		1.5				1.5				1.5
Spares and repair parts		9.3		8.0		8.6		4.1				4.1				4.1
First destination transportation		.2		.6		.4		.8				.8				.8
Production base support		20.5		13.7		12.0		20.2				20.2				20.2
Subtotal		42.3		56.3		42.0		51.3		−6.6		44.7		−12.4		38.9
Prior year financing available																
Appropriation requiring authorization								51.3		−6.6		44.7		−12.4		38.9

Army Other Weapons

This category includes weapons and other combat vehicles such as individual and crew served weapons other than tracked vehicles:

	Millions
Army request	$51.3
Senate committee recommended reduction	−12.4
Senate committee recommendation	38.9
House authorization	44.7

Authorization Request

The FY 1974 request for authorization of appropriation contains $51.3 million for procurement of such weapons as rocket launchers, machine guns, rifles and support equipment.

Summary of House Action

The House approved $44.7 million, a reduction of $6.6 million from the request (−$3.5 million requested for XM 198 medium towed howitzer and −$3.1 million requested for M16A1 rifles).

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends authorization of $38.9 million for Army other weapons.

The committee recommendation differs from the request as follows:

XM 198 Medium Towed Howitzer, −$3.5 million reduction

The Army request for $3.5 million for advanced procurement for the XM 198 medium towed howitzer was the initial request for procurement funding. Technical difficulties being experienced during development has resulted in the Army slipping the program schedule and negating the FY 1974 procurement funding requirement.

M60 Machinegun, −$4.5 million reduction

The Army request contained an amount of $4.5 million for procurement of 6,000 M60 machineguns that would be placed in storage programmed against future Allied requirements. The committee recommends this item be deleted from the request.

M219 Machinegun, −$1.3 million reduction

The Army request contained an amount of $8.5 million for procurement of 1,875 M219 machineguns including a quantity of 303 that would be placed in storage programed against future Allied requirements. The committee recommends that $1.3 million be deleted from the request and authorization be given for $7.2 million for FY 1974.

M16 A1 Rifle, −$3.1 million reduction

The Army request contained an amount of $3.1 million for procurement of 31,000 M16 A1 rifles. The committee recommends that this amount be deleted from the request.

Fiscal Year 1974 Navy and Marine Corps Other Weapons Procurement Request

[In millions of dollars]

	Fiscal year 1972 program		Fiscal year 1973 program (appropriated)		Fiscal year 1973 program (current)		Fiscal year 1974 request		House				Senate			
									Change from request		Authorized		Change from request		Recommended	
	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.	Qty.	Amt.
Navy:																
MK22 machinegun			226	1.4	120	1.4	100	0.8			100	0.8	−100	−0.8		
Close-in weapons system			9	23.2	9	23.2		13.0				13.0		−8.0		5.0
Items less than $500,000		0.9		1.1		.3		.2				.2				.2
Modification of guns and gun mounts		15.8				21.4		21.7				21.7				21.7
Gun support equipment		3.3				7.9		2.6				2.6				2.6
Spares and repair parts		2.5				4.8		3.6				3.6				3.6
Subtotal		22.5		25.7		59.0		41.9				41.9		−8.8		33.1
Appropriation requiring authorization								41.9				41.9		−8.8		33.1
Marine Corps:																
First destination transportation		.1		.2		.2										
Items less than $500,000		.6		.7		.8		.7				.7				.7
Subtotal		.7		.9		1.0		.7				.7				.7
Appropriation requiring authorization								.7				.7				.7

NAVY OTHER WEAPONS

	Millions
Navy request	$41.9
Senate committee recommended reduction	−8.8
Senate committee recommendation	33.1
House authorization	41.9

Authorization Request

The Navy request for Other Weapons for fiscal year 1974 includes funding for the new Close-In Weapon System (CIWS), the 5″/54 gun mount improvement program, and various other support programs including modifications of existing guns and gun mounts.

Summary of House Action

The House approved the Navy request of $41.9 million.

House action is shown for information only since the House bill was not referred in time for committee consideration.

Committee Recommendation for Changes

The committee recommends authorization of appropriations in the amount of $33.1 million. This is a reduction of $8.8 million from the amount of $41.9 million requested and contained in the House bill.

MK22 Machinegun, −$0.8 million reduction

The committee was advised that a decision has been made by the Department of Defense subsequent to submission of the budget request not to procure this machinegun. The committee, therefore, recommends denial of funding.

Close-In Weapons System, −$8.0 million reduction

The Phalanx CIWS is being developed as a last ditch defense against the anticruise missile. For fiscal year 1973 the committee noted that additional development slippage had occurred and there had been substantial increases in the cost of the system since submission of the President's budget and recommended denial of production funding. Subsequent Congressional action resulted in approval of $23.2 million for procurement of 9 CIWS to be used in at sea testing.

The fiscal year 1974 request is for $13 million, $5 million of which is for support of production of the systems approved last year and $8 million is for long lead effort for subsequent buys.

The committee notes that there has been continued development slippage, and testing of the two developmental prototypes is incomplete. Further, the systems approved for production are not yet under contract, and as a result there will be no at sea confirmatory testing of this system during fiscal year 1974. Although the system shows promise, there is no assurance at this time that development goals have been successfully accomplished. The committee believes

that approval of funding of long lead effort for subsequent production of the system should not be approved until development and testing is complete and, therefore, recommends denial of the $8 million requested for long lead effort.

MARINE CORPS OTHER WEAPONS

Marine Corps Request, $0.7 Million

Summary of House Action

The House approved the Marine Corps request of $0.7 million.

Committee Recommendation

The committee also recommends authorization of $0.7 million.

TITLE II—RESEARCH AND DEVELOPMENT

Sec. 201—Research, Development, Test, and Evaluation Authorizations

The tabulations below show a comparison of the amounts authorized and appropriated for research, development, test, and evaluation for fiscal year 1973 with the amounts requested in the President's budget for fiscal year 1974, as adjusted by the actions of the House (H.R. 9286), and as recommended by the committee.

RESEARCH, DEVELOPMENT, TEST, AND EVALUATION, COMPARATIVE SUMMARY OF ACTIONS ON AUTHORIZATION REQUEST

[In thousands of dollars]

Department	Fiscal year 1973		Fiscal year 1974		
	Authorized	Appropriated	Request	As reported by the committee	[1] House authorized
Army	1,978,966	1,829,032	2,108,700	1,935,933	2,031,686
Navy (including Marine Corps)	2,708,817	2,545,213	[2] 2,711,700	[2] 2,656,200	[2] 2,675,300
Air Force	3,272,777	3,122,940	3,212,500	2,958,200	3,110,811
Defense agencies	505,987	435,313	[3] 525,000	[3] 509,400	[3] 504,000
Director of Test and Evaluation, Defense		27,000			
Emergency fund	50,000				
Total R.D.T. & E. authorization	8,516,547	7,959,498	[2] 8,557,900	[2] 8,059,733	[2] 8,321,797

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.
[2] Includes $2,600,000 for Navy special foreign currency program.
[3] Includes $24,600,000 for the activities of the Director of Test and Evaluation, Defense.

SUMMARY OF ADJUSTMENTS TO FISCAL YEAR 1974 R.D.T. & E. AUTHORIZATION REQUEST RECOMMENDED BY SENATE ARMED SERVICES COMMITTEE

[In thousands of dollars]

Department	1974 request	Senate Armed Services Committee		[1] House authorized
		Change	Recommended	
Army	2,108,700	−172,767	1,935,933	2,031,686
Navy (including Marine Corps)	[2] 2,711,700	−55,500	[2] 2,656,200	[2] 2,675,300
Air Force	3,212,500	−254,300	2,958,200	3,110,811
Defense agencies	[3] 525,000	−15,600	[3] 509,400	[3] 504,000
Total R.D.T. & E. authorization	[2] 8,557,900	−498,167	[2] 8,059,733	[2] 8,321,797

[1] House action is shown for information only since the House bill was not referred in time for committee consideration
[2] Includes $2,600,000 for Navy special Foreign Currency program.
[3] Includes $24,600,000 for the activities of the Director of Test and Evaluation, Defense.

Authorization Requested

The Department of Defense requested authorization in the amount of $8,557,900,000, which includes $2,600,000 for the Navy Special Foreign Currency Program.

House Action

The House reduced the authorization request by $236,103,000, resulting in an authorization of $8,321,797,000. These reductions were made in specific programs, as subsequently identified, except that the reductions of $36,400,000 for the Navy and $21,000,000 for Defense Agencies are to be taken on the basis of priorities.

Summary of Committee Recommendations

The committee recommends authorization of $8,059,733,000. This represents a reduction of $498,167,000 or 5.8 percent from the amount requested, and is $262,064,000 below the amount authorized by the House. This recommendation reflects numerous decreases that are offset in part by one increase, totaling $14 million to initiate full scale development and test of a two-seat version of the Air Force F–5E to be designated the F–5F. These changes are discussed elsewhere in the report.

General Discussion of Committee Reductions

The fiscal year 1974 authorization request for $8,557,900,000 is $213.9 million less than the amount requested for fiscal year 1973. However, it is the second largest amount ever requested for the Research, Development, Test and Evaluation appropriation. It also is $41.4 million more than the amount authorized and $598.4 million more than the amount appropriated for fiscal year 1973.

The committee was advised that other appropriations in support of research and development during fiscal year 1974 would add $688.7 million, making the total amount for research and development $9.3 billion.

The Director of Defense Research and Engineering, in his statement before the committee, again expressed his concern, as he had done consistently in the past several years, about the growing disparity between Soviet and U.S. resources devoted to research and development. This growing threat to our technological lead, he stated, seriously jeopardizes our superiority in future weaponry. However, when asked why more funds were not being requested for research and development to overcome this imbalance, he explained that it was because of the Military Services' apprehension over continued Congressional cuts in the R.T.D. & E. request. He stated that during the past three years, the Congress had made reductions in R.D.T. & E. that exceeded $1.5 billion.

This argument is not understood. Other appropriation requests have been cut as much or more during the same three years, but the Department still asks for what it needs in those areas. The fact is that it is as much or more the composition of the R.D.T. & E. request as the overall size which results in Congressional reductions.

The committee reductions recommended to the R.D.T. & E. request have now, as in the past, been directed against individual programs, although it is recognized that other committees have on occasion used general or percentage cuts. But large amounts are deleted because they are requested for programs which the Congress does not consider necessary. If other programs were proposed, whose need was accepted by the Congress, the funds would be approved.

For example, the Army requested $42.4 million for development of a Light Area Defense (LAD) of the United States. The committee

deleted the funds and directed that the program be terminated for a number of significant reasons including (a) the system could not be deployed under the ABM treaty; (b) even if it could be deployed it would have only limited capability against an accidental or unauthorized launch of a few ICBM's but would not stop a ballistic missile launched on a depressed trajectory from a submarine; and (c) for this marginal capability some $300 million would be needed for advanced development and between $1.5 and $3.0 billion to deploy.

The decision by the committe on the fiscal year 1974 request for the LAD program is even more significant in that the larger dollar amounts which would have been required in fiscal year 1975 and later may now be planned for other and more important technology and programs.

The committee urges the Department of Defense to exercise more foresight and better judgment in the decisions made regarding what research and development programs to propose each year. This should insure more favorable consideration by the Congress. Future authorization requests for R.D.T. & E. must emphasize those technologies and weapon systems which are critical to our future survival. The Department of Defense would not be fulfilling this responsibility if it settled for anything less. Adverse Congressional reaction must not be interpreted as a vote against the need for research and development. It should instead be recognized as a challenge to do a more effective job of convincing the Congress of the validity and urgency of the requirements. Failures such as the Cheyenne helicopter and the Main Battle Tank, parochialism, as evidenced by the "four tactical air forces," and other inefficiencies and wasteful duplication discourage Congressional support. The Department must strive to do a better overall job of managing the research and development program.

The Director of Defense Research and Engineering stated that there are two questions about research and development that are central to all the decisions that went into the preparation of the budget request:

How much defense R.D.T. & E. is enough?
How do we best measure adequacy?

In all of the hearings and discussions which were conducted, he did not conclude by quantifying an answer, possibly because there is no simple answer. However, it is clear that the Department of Defense has increased its efforts to determine the specific types of critical weapons and technologies where we are lagging behind the Soviets or where we may be losing the lead. This subject was addressed in great detail during the appearance of Defense witnesses before the committee, as set forth in the published hearings. The committee considers this to be a matter of vital concern because a technical breakthrough by the Soviets could provide a margin of superiority which would jeopardize our future military effectiveness and national security. While this will continue to be a possibility that cannot be entirely set aside, the committee believes that the amount recommended for fiscal year 1974 will provide adequately for the development of those weapon systems which are needed to meet our future military requirements. It will also provide the level of technology needed to insure the capability to develop future weapons to meet the threat of all potential enemies.

The committee still is convinced, as was stated on page 85 of Report No. 92–962 on the fiscal year 1973 bill, that

> "the superiority of our future weaponry depends as much on which weapon systems are selected for development by our military leaders as it does on the total amount of funds provided by the Congress. The committee encourages the Department of Defense to make improvements in the management of the research and development program so that a full dollar's worth of value will be realized for every dollar spent. This has not been the case in the past."

The committee believes that greater efforts must be made to encourage our NATO and other allies to devote a larger share of their gross national product and defense spending to research and development because the U.S. contribution far exceeds any of theirs as indicated in the following table:

1972 (ESTIMATED)

Country	Military R. & D. (millions)	Military R. & D. as percent of defense	Military R. & D. as percent of GNP
United States	$7,888	9.7	0.68
United Kingdom	660	8.9	.48
France	600	9.8	.34
Germany	490	6.3	.20
Italy	30	.9	.03
Canada	100	5.3	.11
Japan	50	11.5	.02
Netherlands	16	1.1	.04
Norway	6	1.2	.04

The committee conducted extensive and searching hearings directed toward the detailed review and evaluation of the many programs proposed by the Department of Defense for the fiscal year 1974 R.D.T. & E. program. These efforts were conducted largely by the Subcommittee on Research and Development whose recommendations were made on specific programs and projects.

The committee recommendations, with the exception of the increase for the two-seat version of the F–5E, provide for no increase in authorization above the amounts requested. The individual changes recommended by the committee are identified in the tables which follow.

Adjustments to Fiscal Year 1974 Research and Development Authorization Request Recommended by Senate Armed Services Committee

R.D.T. & E., ARMY

[In thousands of dollars]

Program element	Fiscal year 1974 request	Senate Armed Services Committee: Change from request	Senate Armed Services Committee: Recommendation	[1] House authorized
Military sciences:				
Military selection, training, and leadership	1,300	−55	1,245	1,300
Other programs approved	186,100		186,100	186,100
Total, military sciences	187,400	−55	187,345	187,400
Aircraft and related equipment:				
Aerial scout	1,000	−1,000		1,000
Utility tactical transport	108,825	−6,125	102,700	102,625
Advanced attack helicopter	49,200	−3,500	45,700	49,200
Other programs approved	142,375		142,375	142,375
Total, aircraft	301,400	−10,625	290,775	295,200
Missiles and related equipment:				
Exploratory ballistic missile defense	39,300	−15,400	23,900	39,300
Advanced ballistic missile defense	60,700	−27,000	33,700	60,700
Advanced forward area air defense system	28,065	−19,465	8,600	28,065
Site defense	170,000	−70,000	100,000	145,000
Safeguard	216,000	−16,300	199,700	191,000
Other programs approved	453,135		453,135	453,135
Total, missiles	967,200	−148,165	819,035	917,200
Military astronautics and related equipment	17,900		17,900	17,900
Ordnance, combat vehicles and related equipment:				
Nuclear munitions	14,498	−8,398	6,100	
Howitzer 155 mm (XM198)	5,976		5,976	
Bushmaster	13,720	−3,894	9,826	13,720
Antitank assault weapon (TOW)	8,100	−1,580	6,520	8,100
Other programs approved	198,506		198,506	198,506
Total, ordnance	240,800	−13,872	226,928	220,326
Other equipment:				
Land warfare laboratory	5,163	−50	5,113	5,163
Other programs approved	330,737		330,737	330,737
Total, other equipment	335,900	−50	335,850	335,900
Programwide management and support	58,100		58,100	58,100
Undistributed reduction				−340
Total, Army R.D.T. & E. authorization	2,108,700	−172,767	1,935,933	2,031,686

R.D.T. & E., NAVY

[In thousands of dollars]

Program element	Fiscal year 1974 request	Senate Armed Services Committee: Change from request	Senate Armed Services Committee: Recommendation	[1] House authorized
Military sciences	[2] 141,200		[2] 141,200	[2] 141,200
Aircraft and related equipment:				
V/STOL for sea control ship	26,300	−3,900	22,400	26,300
Advanced propulsion for V/STOL	11,300	−5,400	5,900	11,300
Airborne ASW developments	12,731	−745	11,986	12,731
Aerial target systems	14,355	−1,900	12,455	14,355
CH-53E	30,000	−1,200	28,800	30,000
Other programs approved	158,214		158,214	158,214
Total, aircraft	252,900	−13,145	239,755	252,900
Missiles and related equipment:				
Strategic cruise missile	15,200	−15,200		15,200
Aegis	43,134	−3,000	40,134	43,134
Surface-launched weaponry, systems and technology	9,260	−4,500	4,760	9,260
Other programs approved	854,306		854,306	854,306
Total, missiles	921,900	−22,700	899,200	921,900

See footnote at end of table.

Adjustments to Fiscal Year 1974 Research and Development Authorization Request Recommended by Senate Armed Services Committee—Continued

R.D.T. & E., NAVY—Continued

[In thousands of dollars]

Program element	Fiscal year 1974 request	Senate Armed Services Committee: Change from request	Senate Armed Services Committee: Recommendation	[1] House authorized
Military astronautics and related equipment	55,500		55,500	55,500
Ships, small craft, and related equipment:				
Reactor propulsion plants	7,202	−300	6,902	7,202
Advanced command data system	5,849	−1,049	4,800	5,849
Surface effect ships	72,800	−11,900	60,900	72,800
A4W/A1G nuclear propulsion plants	7,534	−284	7,250	7,534
D2W nuclear propulsion plants	7,202	−202	7,000	7,202
Advanced design submarine nuclear propulsion plant	11,700	−100	11,600	11,700
NATO PHM	24,000	−5,170	18,830	24,000
Submarine silencing	8,708	−500	8,208	8,708
Other programs approved	475,105		475,105	475,105
Total, ships	620,100	−19,505	600,595	620,100
Ordnance, combat vehicles and related equipment	50,100		50,100	50,100
Other equipment:				
Environmental protection	9,100	−150	8,950	9,100
Other programs approved	514,500		514,500	514,500
Total, other equipment	523,600	−150	523,450	523,600
Programwide management and support	146,400		146,400	146,400
Undistributed reduction				−36,400
Total, Navy R.D.T. & E. authorization	[2] 2,711,700	−55,500	[2] 2,656,200	[2] 2,675,300

R.D.T. & E., AIR FORCE

[In thousands of dollars]

Military sciences	134,600		134,600	134,600
Aircraft and related equipment:				
Subsonic cruise armed decoy	72,200	−72,200		22,000
Lightweight fighter prototype	46,500		46,500	40,000
Advanced medium STOL transport	67,200	−2,000	65,200	67,200
Advanced turbofan engine	15,600	−15,600		15,600
B–1 aircraft	473,500	−100,000	373,500	473,500
A–10 aircraft	112,400	−20,000	92,400	112,400
International fighter aircraft	2,600	+14,000	16,600	2,600
Other programs approved	436,000		436,000	436,000
Total, aircraft	1,226,000	−195,800	1,030,200	1,169,300
Missiles and related equipment:				
Minuteman squadrons	99,800	−100	99,700	99,800
Other programs approved	192,600		192,600	192,600
Total, missiles	292,400	−100	292,300	292,400
Military astronautics and related equipment:				
Missile attack assessment	10,300	−4,200	6,100	10,300
Other programs approved	518,800		518,800	518,800
Total, astronautics	529,100	−4,200	524,900	529,100

See footnotes at end of table.

ADJUSTMENTS TO FISCAL YEAR 1974 RESEARCH AND DEVELOPMENT AUTHORIZATION REQUEST RECOMMENDED BY SENATE ARMED SERVICES COMMITTEE—Continued

R.D.T. & E., AIR FORCE—Continued

[In thousands of dollars]

Program element	Fiscal year 1974 request	Senate Armed Services Committee: Change from request	Senate Armed Services Committee: Recommendation	[1] House authorized
Ordnance, combat vehicles and related equipment:				
Close air support weapon system	8,000	−8,000		8,000
Other programs approved	115,200		115,200	115,200
Total, ordnance	123,200	−8,000	115,200	123,200
Other equipment:				
Human resources	8,200		8,200	5,211
Advanced airborne command post	37,300	−4,200	33,100	37,300
AWACS	197,800	−42,000	155,800	155,800
Other programs approved	273,600		273,600	273,600
Total, other equipment	516,900	−46,200	470,700	471,911
Programwide management and support	390,300		390,300	390,300
Total, Air Force R.D.T. & E. authorization	3,212,500	−254,300	2,958,200	3,110,811

R.D.T. & E., DEFENSE AGENCIES

[In thousands of dollars]

DARPA program:				
Military sciences:				
Defense research sciences	37,100	−500	36,600	37,100
Other programs approved	4,000		4,000	4,000
Total, military sciences	41,100	−500	40,600	41,100
Missiles and related equipment	72,500	−2,700	69,800	72,500
Other equipment:				
Nuclear monitoring research	21,400	−300	21,100	21,400
Tactical technology	27,600	−500	27,100	27,600
Advanced command, control and communications	9,800	−1,000	8,800	9,800
Other programs approved	34,700		34,700	34,700
Total, other equipment	93,500	−1,800	91,700	93,500
Programwide management and support	3,441		3,441	3,441
Total, DARPA R.D.T. & E.	210,541	−5,000	205,541	210,541
Total, DCA R.D.T.& E.	21,100	−900	20,200	21,100
Total, DIA/NSA/DNA R.D.T. & E.	227,105	−9,300	217,805	227,105
Total, DMA R.D.T. & E.	11,915	−400	11,515	11,915
Total, DSA R.D.T. & E.	13,500		13,500	13,500
Technical support to OSD/JCS total	16,239		16,239	16,239
Undistributed reduction				−21,000
Total, defense agencies R.D.T. & E.	500,400	−15,600	484,800	479,400
Total, Director of Test and Evaluation R.D.T. & E.	24,600		24,600	24,600
Total, Department of Defense R.D.T. & E. authorization	[2] 8,557,900	−498,167	[2] 8,059,733	[2] 8,321,797

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.
[2] Includes $2,600,000 for Navy special foreign currency program.

MAJOR RESEARCH AND DEVELOPMENT PROGRAMS

The programs listed below, with adjustments recommended by the committee but discussed elsewhere in the report, include the major weapon systems for which the largest amounts are requested for research and development as well as those which the committee considered to be of special significance.

MAJOR RESEARCH AND DEVELOPMENT PROGRAMS

[In millions of dollars]

Program	Fiscal year 1974 request	Senate Armed Services Committee		[1] House authorized
		Change	Recommended	
Army:				
Utility tactical transport helicopter	108.8	−6.1	102.7	102.6
Advanced attack helicopter	49.2	−3.5	45.7	49.2
Heavy lift helicopter	59.9		59.9	59.9
Light area defense	42.4	−42.4		42.4
Site defense	170.0	−70.0	100.0	145.0
SAM-D	193.8		193.8	193.8
Safeguard	216.0	−16.3	199.7	193.0
Tank systems (XM1)	52.1		52.1	52.1
Mechanized infantry combat vehicle (XM723)	9.8		9.8	9.8
Navy:				
V/STOL for sea control ship	26.3	−3.9	22.4	26.3
CH-53E	30.0	−1.2	28.8	30.0
F-14B	17.0		17.0	17.0
F-14A	40.4		40.4	40.4
Strategic cruise missile	15.2	−15.2		15.2
Aegis	43.1	−3.0	40.1	43.1
Trident missile	529.0		529.0	529.0
Trident submarine	125.6		125.6	125.6
Sanguine	16.6		16.6	16.6
Surface effect ship	72.8	−11.9	60.9	72.8
NATO PHM	24.0	−5.2	18.8	24.0
Harpoon missile	66.4		66.4	66.4
Air Force:				
Subsonic cruise armed decoy	72.2	−72.2		22.0
Lightweight fighter prototype	46.5		46.5	40.0
Advanced medium STOL transport	67.2	−2.0	65.2	67.2
B-1	473.5	−100.0	373.5	473.5
A-10	112.4	−20.0	92.4	112.4
International fighter	2.6	+14.0	16.6	2.6
F-15	229.5		229.5	229.5
Advanced ICBM technology	6.0		6.0	6.0
Minutemar	99.8	−.1	99.7	99.8
Advanced airborne command post	37.3	−4.2	33.1	37.3
AWACS	197.8	−42.0	155.8	155.8

[1] House action is shown for information only since the House bill was not referred in time for committee consideration

COMMITTEE ACTION ON SELECTED SUBJECTS IN THE RESEARCH, DEVELOPMENT, TEST, AND EVALUATION AUTHORIZATION REQUEST

Research and Development Fiscal Year 1974 Programs With Excess Funds

The committee recommends reductions totaling $88.7 million in the programs listed below. Analysis of available data and testimony by Defense witnesses indicates that these funds are excess to fiscal year 1974 requirements because of program slippage, unrealistic schedule, or non-compliance with the incremental programing policy previously established by the Senate Armed Services Committee in Report No. 92-359 (page 98) which accompanied the fiscal year 1972 Military Procurement Authorization Bill.

[In thousands of dollars]

Program	Requested	Change	Recommended
Army:			
Advanced attack helicopter	49,200	−3,500	45,700
Bushmaster	13,720	−3,894	9,826
Antitank assault weapon (TOW)	8,100	−1,580	6,520
Total, Army		−8,974	
Navy:			
Aerial target systems development	14,355	−1,900	12,455
CH–53E helicopter	30,000	−1,200	28,800
Airborne ASW developments	12,731	−745	11,986
Submarine silencing	8,708	−500	8,208
Reactor propulsion plants	7,202	−300	6,902
Advanced command data system	5,849	−1,049	4,800
A4W/A1G nuclear propulsion plant	7,534	−284	7,250
D2W nuclear propulsion reactor	7,202	−202	7,000
Advanced design submarine nuclear propulsion plant	11,700	−100	11,600
NATO PHM	24,000	−5,170	18,830
Environmental protection	9,100	−150	8,950
Total, Navy		−11,600	
Air Force:			
Airborne warning and control system	197,800	−42,000	155,800
Missile attack assessment	10,300	−4,200	6,100
Minuteman	99,800	−100	99,700
Advanced airborne command post	37,300	−4,200	33,100
Advanced medium STOL transport	67,200	−2,000	65,200
Total, Air Force		−52,500	
Defense agencies:			
Defense communication system (DCA)	9,530	−700	8,830
Defense communication system test and evaluation (DCA)	4,100	−200	3,900
Mapping, charting and geodesy investigations (DMA)	7,985	−400	7,585
Nuclear weapons effects development (DNA)	53,509	−1,100	52,409
Nuclear weapons effects tests (DNA)	73,691	−3,900	69,791
Defense intelligence agency (DIA)	6,405	−2,500	3,905
Strategic technology (ARPA)	16,685	−2,700	13,985
Tactical technology (ARPA)	1,900	−500	1,400
Advanced command, control, and communications technology (ARPA)	3,250	−1,000	2,250
Nuclear monitoring research (ARPA)	1,400	−300	1,100
Information processing techniques (ARPA)	3,550	−500	3,050
Other programs		−1,800	
Total, defense agencies		−15,600	

NAVY V/STOL PROGRAMS

Committee Recommendation

The committee recommends a reduction of $3.9 million from the $26.3 million requested for the "augmented wing" V/STOL program, a reduction of $5.4 million from the $7.0 million requested for the advanced HARRIER, and approval of the $300,000 requested for lift-plus-lift-cruise V/STOL studies.

Description of V/STOL Technologies

There are three current design approaches to V/STOL airplanes, and all three are being pursued by the Navy. The "augmented wing" is a revolutionary new method of blowing jet engine air down through slots in the wings to entrain additional airflow and produce more lift than jet thrust. The advanced Harrier uses a single jet engine's thrust diverted downwards by rotating the engine exhaust nozzles. The "lift-plus-lift-cruise" uses two small booster lift engines for takeoff or landing as well as the main jet engine's thrust diverted through a swiveling nozzle.

Augmented Wing Prototype Program

This prototyping program was begun last year as the Navy's response in prototyping new aircraft concepts. It currently is in a preliminary phase intended to demonstrate the capability of the jet augmentation principle to produce increased lift. This fundamental requirement is scheduled to be demonstrated by December, 1973 and if successful would be followed by flight testing of a conventional take-off and landing version of the plane in the fall of 1974. V/STOL flight testing of a second airplane would follow starting in early 1975. Much of the flight testing with the conventional version is aimed at exploring the supersonic part of the airplane's flight envelope.

The augmented wing prototype program is stated by the Navy to be a high-risk, technology-advancement, effort. Nevertheless, the development program is laid out with a series of performance milestones which must be met before the program can continue. This programing philosophy does not appear consistent with a state-of-the-art technology advancement program.

Advanced Harrier

This program currently is in the design study phase to determine the performance, cost, and schedule of an improved version of the AV–8A Harrier now operational with the Marine Corps and the Royal Air Force. The advanced version would be powered by a Pegasus 15 engine with 3,000 pounds additional thrust over the present 21,000 pound Pegasus 11. It also would have an improved airframe configuration with decreased aerodynamic drag, improved pilot visibility, etc. The net impact of the changes is hoped to result in a doubled range/payload over the present Harrier.

A joint development effort is being discussed between the United States and the United Kingdom governments, with McDonnell-Douglas and Hawker-Siddley as the airframe contractors and Pratt-Whitney and Rolls-Royce as the engine developers. Details of the joint funding of this four contractor effort have not been arranged yet.

Potential V/STOL Applications

Testimony this year before the committee was that there was a potential market for 632 V/STOL aircraft, 57 fighters for Navy sea control ships, 297 Marine fighter replacements, and 278 Marine attack airplane replacements. The augmented wing application is stated to be as a supersonic fighter with a possible dual role as an attack airplane. The advanced Harrier would be subsonic and strictly a ground attack airplane, similar to the present Harrier. Lift-plus-lift-cruise aircraft would be supersonic and also have an attack potential.

The sea control ship application is not large enough to justify a unique aircraft development, and the Marine requirements should take precedent. Also the advanced Harrier could be available in the late 1970s because it basically is an improvement over an existing design, whereas the augmented wing and lift-plus-lift-cruise would appear to be timed for the 1980s.

Basis for Committee Action

The committee believes that the Navy is expending too large a share of its V/STOL R&D on a high risk technology advancement program with the augmented wing which may not produce a useful operational vehicle. Also, the efforts to develop the supersonic flight regime of the

prototypes before the V/STOL potential is demonstrated appear oriented more towards a lightweight fighter prototype effort. The committee reduction of $3.9 million was from funds associated with this conventional flight development, which is not necessary this early in the prototype program. The committee also desires to see careful design studies done before next year to evaluate the operational potential of an augmented wing V/STOL airplane.

The committee reduced the advanced Harrier by $5.4 million, which was requested on the assumption that full development would begin in October, 1973. The $1.6 million remaining will permit a constant level of effort during fiscal year 1974. Congressional review and approval to start a full development program thus will not occur until fiscal year 1975.

The committee believes that the Navy should consider utilizing the existing German VAK–191 lift-plus-lift-cruise prototype to gain operating experience with this V/STOL technology in order to supplement the current design studies.

Above all, the Navy and Marine Corps need to define their requirements and objectives for V/STOL fighter and attack airplanes and agree upon a balanced plan to accomplish the objectives. The committee believes additional operating experience should be obtained with present Harrier attack squadrons and with the prototype sea control ship before any major development program is started.

TWO-PLACE F–5E—ADDITION OF $14.0 MILLION

The committee recommends the addition of $14.0 million to partially support a requirement for $32.1 million to develop a two-seat version of the Northrop F–5E International Fighter to be designated the F–5F. The balance of $18.1 million will be provided by repayments anticipated from foreign military sales. This is a reduction of $3.0 million from the Air Force request for $35.1 million, which was considered to be in excess of requirements. The funds will be used to complete a definition study and initiate full scale development and testing of two prototype aircraft. The request for funds to be authorized for this development program was received, after the regular budget submission in January, in a letter dated July 9, 1973, from the Deputy Secretary of Defense.

UTILITY TACTICAL TRANSPORT AIRCRAFT (UTTAS)

Committee Recommendation

The committee recommends a reduction of $6.1 from the amount requested, which represents the additive costs for six additional prototype aircraft. This will leave $102.7 million to continue the development as previously approved by the Congress.

Committee Considerations

Last year, in approving this program, the committee directed that the program be pursued with four instead of seven prototype helicopters for each of the two competing contractors. This action was sustained both by the House and Senate and carried through the Authorization and Appropriation Acts. The Army has proposed to continue this competitive development but also has requested funds

for the addition of the three prototypes each for the two contractors, notwithstanding the specific direction of the Congress last year. However, the Army was unable to convince the committee that additional prototypes are needed. Therefore, the committee considers that the program directed by the Congress last year should be continued with the four prototypes each that have been authorized for the two competing contractors. As stated in last year's report, the committee still considers that the contractor competition should be continued only as long as necessary to determine that the components used by each contractor provide a real competitive base; and that any trade-offs required are made prior to the conduct of a prototype flyoff and the selection of a single contractor to proceed with final engineering development.

ADVANCED TURBOFAN ENGINE

Committee Recommendation

The committee recommends denial of the $15.6 million requested because there is no stated military requirement for this engine.

Background

The objective of this program is to pursue a competition between General Electric and Pratt and Whitney for a demonstrator engine in the 20,000-pound thrust class to meet future requirements for subsonic transport and support aircraft. The demonstrator program is estimated to cost a total of $74 million and, if pursued with a single contractor through full development, would cost an additional $300 million.

Last year, this engine was identified with the Advanced Medium STOL Transport (AMST) prototype program. The funds requested were deleted by the Congress. This year, the Air Force has stated that this engine is not required for the AMST since the two designs being pursued under competitive contracts with Boeing and McDonnell-Douglas for this aircraft will use existing Pratt and Whitney or General Electric engines to satisfy the performance requirements specified by the Air Force.

The Air Force also has stated that there is an earlier requirement in the commercial market for an engine of this type, and that if the engine is developed, it could provide at a later time for improved performance of the AMST if this aircraft ultimately is approved for engineering development and production. It also could be used to improve the C–130 and the AWACS systems, but these potential requirements alone would not justify this new development.

Committee Considerations

The Air Force also has testified that this development was proposed because, traditionally, the Air Force has developed engines for the commercial market. This is not considered to be an acceptable justification for this program, particularly in view of the continued austere outlook for defense budgets. Nonetheless, an attempt was made by the committee to establish a joint program between the Air Force and the National Aeronautics and Space Administration (NASA) in the interest of supporting the primary commercial and ancillary military use. Both agencies would have shared the costs and pursued the dual

objective of commercial application and any later military application. Although preliminary informal approval of this approach was obtained from the chairman of the Senate Aeronautical and Space Sciences Committee and NASA, over which that committee has jurisdiction, the Air Force rejected this approach.

The committee recommendation was reinforced by State Department approval of an export license for Pratt and Whitney to undertake cooperative development of their candidate engine with German and Italian participation. Similar approval is expected by the State Department for a cooperative program between General Electric and a French company. The significance of this is that both United States companies are pursuing this competitive development program without the direct contribution of United States funds primarily because of their interest in the commercial transport market. In such cases, company rather than direct Government funding should be the method of financing. It was also recognized that both contractors can recover a substantial portion of the funds which they spend on this program from the Department of Defense through the Independent Research and Development (IR&D) program.

Matters for Consideration by Other Committees

The example set by the cooperation between the two Senate committees, Armed Services and Aeronautical and Space Sciences, involving the pursuit of a practical solution to problems common to the two federal agencies which fall under their respective cognizance should be considered where appropriate by other committees of the Senate. The basic interest of the Senate in the objectives of efficiency, economy, and avoidance of unnecessary overlap or duplication can be advanced further by supporting joint agency programs when appropriate. This may apply in some cases where the agencies involved should pursue joint programs but have not planned to do so either for lack of knowledge or parochialism.

AEGIS

Committee Recommendation

The committee recommends a reduction of $3.0 million from the Navy's request for $43.1 million to continue development of the Aegis missile system.

Basis for Committee Action

The Aegis surface-to-air missile fire control system will utilize a phased array radar which will permit multiple shot and track-while-scan operation. The current Standard missile and an improved version of Standard both will be compatible with Aegis.

The Aegis system will not be retrofitted on present Navy ships but will be installed on a new class of destroyers called DGs. Present Navy plans call for the first of the new class to be delivered early in the 1980s. However, the DG shipbuilding program has not yet been approved by OSD. The reduction of $3.0 million is the funding requested to start a second prototype of the Aegis system for further testing. The committee believes this should not be started until the ship construction program is approved. At that time the development of the second prototype should be time-phased to coincide with the DG program schedule.

DUAL-MODE REDEYE MISSILE

Committee Recommendation

The committee recommends deletion of the $4.5 million requested by the Navy to begin engineering development of a dual-mode Redeye missile.

Description of Proposed Missile

The dual-mode Redeye is a Navy adaptation of the Army man-portable Redeye heat-seeking antiaircraft missile. This new version is intended to shoot down anti-ship cruise missiles. It would be modified with a dual guidance system using initial homing onto the radar emissions of incoming cruise missiles and with terminal homing using the heat seeker system. The Redeye is a very small missile, weighing only about 30 pounds, so it can be carried and shoulder-launched by soldiers in the field. It therefore has a very small warhead, only 1 pound, and must establish a direct hit to kill its target.

Basis for Committee Action

The dual guidance system will be expensive. The committee believes that it does not appear logical or cost-effective to put this high priced guidance system on so small a missile. By comparison, the Sidewinder/Chaparral class of missiles uses a 25-pound warhead and has a much greater lethality potential. The committee believes the dual-mode Redeye is in the wrong size category for this mission and considers that the project should be terminated.

ARMY ALL-WEATHER SHORT RANGE MISSILE

Committee Recommendation

The committee recommends deletion of the entire $19.5 million requested by the Army to begin engineering development to "Americanize" a radar guided, all-weather foreign missile system. The system eventually would be produced in the United States under license.

Description of Potential Candidates

The Army has been testing the French Crotale, British Rapier, and German Roland missile systems. These three systems essentially have completed development and the R&D costs already have been paid for by the developing countries. All three are in the same general size, range, and lethality category as the Army's Chaparral missile now deployed with Army field forces. The primary difference is that the foreign systems being considered all are in radar-guided versions for use in bad weather, whereas the Chaparral is a heat-seeking missile and is not effective except under visual fair-weather conditions. The foreign countries do not have a heat-seeking missile equivalent to the Chaparral.

The Army Air Defense Mix

Currently, the Army mix of air defense weapons consists of the Hercules and Hawk long and medium range all-weather missiles, the Chaparral missile and Vulcan gun for short range and fair weather field Army defense, and the man-portable heat-seeking Redeye for close-in air defense. Current R&D programs will lead to the radar guided SAM–D replacing the Hercules and Hawk in the 1980's. There are on-going improvements to the Chaparral, and the Stinger produc

improvement to the Redeye will be available in the late 1970's. The major change will come when SAM–D replaces Hercules and Hawk, as it is projected to have a significantly improved performance capability.

Requirements for Additional All-Weather Missile

When the Army testified before the committee, they did not identify an operational requirement for a short range missile with bad weather capability. In fact the latest Army study of the need for such a system concluded that it was not required and that SAM–D, in conjunction with the F–15, could defend adequately against aircraft attacking in non-visual conditions. The finding was not accepted at the Department of the Army level, and at the time of this report the Army is re-evaluating this operational requirement.

Defense Research and Engineering Position

The Director of Defense Research and Engineering has been exerting pressure on the Army to buy one of the foreign developed missile systems to demonstrate cooperation with our NATO allies in research and development, and to show that the United States is willing to use a foreign-developed weapon system.

Basis for Committee Action

Because the Army has not yet determined that there is a valid requirement for another all-weather air defense missile, the committee has deleted the funding requested. The committee will consider a new request in FY 1975, provided the Army determines that there is a requirement and if it is proposed in that budget. The committee does not believe, however, that cooperative development and procurement alone is sufficient justification for such a program.

SAFEGUARD

Committee Recommendation

The committee recommends a reduction of $16.3 million, which will leave $199.7 million to support continued development and deployment of the approved Safeguard program at Grand Forks, North Dakota.

Committee Considerations

The $16.3 million relates specifically to a requirement to prepare the Meck Island missile site radar for continued ballistic missile defense research. The Army testified that this effort is not needed to support the Safeguard deployment at Grand Forks. It represents follow-on research which, if needed, normally would be conducted under the Exploratory or Advanced Ballistic Missile Defense programs. The committee has recommended approval of $23.9 million and $33.7 million respectively for these two programs. Since the separate Site Defense program in effect provides the technology for a system which could replace Safeguard, and since Safeguard is not considered by the Army to be suitable for the National Command Authority (NCA) site if and when approved, it is not understood why additional research should be done specifically for Safeguard. Nevertheless, if the Army still considers that such research is required, it may be accommodated within the two technology programs depending upon its relative priority.

SURFACE EFFECT SHIPS

Committee Recommendation

The committee recommends approval of $60.9 million for this program, which is $11.9 million less than the $72.8 million requested for continuation of the two 100 ton craft test program, completion of preliminary design, and initiation of detailed design of two 2,000 ton competitive prototypes.

Background

The objective of this program is to develop multi-thousand ton ships with speeds of 80 to 100 knots which promise to satisfy a variety of Navy missions and which promise to be of substantial benefit to commercial shipping. The committee supports this objective.

Last year the Navy requested $50.1 million, of which $18 million was for design and to start construction of the two 2,000 ton prototypes. This was based upon the scheduled completion of eight-month preliminary design contracts by four contractors by March 15, 1973, with selection and contract award to two contractors in April 1973.

The committee recommended and the Senate approved denial of the $18 million because it was premature, and therefore not required during fiscal year 1973. The committee considered this to be too optimistic a schedule and a case of unwarranted concurrency in Navy planning. The committee also stated that when the 2,000 ton program is initiated, only one ship should be built using the most promising technology available from the 100 ton test program to avoid concurrent commitment to two $150 million programs. Using this approach, the continued testing and updating of the two 100 ton craft would, if the selected 2,000 ton ship did not prove out, be appropriate as the basis for a proposal for the second 2,000 ton ship. This would, if needed, have provided an alternative in this very high risk program.

The Senate adopted the committee recommendation last year, denied the $18 million and directed the Navy to plan the 2,000 ton ship program as a single ship program while continuing to draw upon the two 100 ton test program and other surface effect ship technology. Although restored to the authorization bill in conference, the $18 million was denied by the Congress in acting on the appropriation bill.

Committee Considerations

As predicted by this committee last year, the program again has slipped because of technical problems encountered in the 100 ton test program, and the program schedule has been revised. The proposed program for fiscal year 1974 provides for:

1. Continuation of the two 100 ton craft test program through their complete contract performance specifications (by August 1973) and follow-on testing.
2. Continued development of technology for Surface Effect Ships.
3. Completion of preliminary design competition for 2,000 ton ships (by September 30, 1973), leading to selection of two competing contractors for follow-on detailed design contracts to be awarded in January 1974.

4. Development of long-lead time subsystems by separate contract and in-house to support the 2,000 ton program.

The reduction recommended was acceptable to the Navy because it represents funds which were determined to be in excess of fiscal year 1974 requirements.

This recommendation approves a competitive detailed design but defers until fiscal year 1975 the decision whether to construct one or two 2,000 ton prototypes.

Recommendation for Restriction on Use of Funds Authorized

Since the key events, satisfactory completion of the 100 ton test program, Department of Defense approval to proceed with detailed design, and progress of supporting technology in solving all major technical problems, will occur after the Senate acts on this bill, the committee recommends that the following restrictive language be included in the authorization act to prevent funds authorized for this program from being reprogramed to other requirements, if these forecasted events do not materialize as scheduled:

> "of which $60,900,000 is authorized only for the Surface Effect Ships program."

If the Navy still proposes to proceed with the construction of two 2,000 ton prototypes in fiscal year 1975, the Congress then will have ample time to consider the merits of the justification for this program.

CHANGES IN R.D.T. & E. PROGRAM STRUCTURE

The committee is substantially satisfied with the actions taken by the Department of Defense to comply with the recommendations made by the committee in the report on last year's authorization bill (pages 107–110) to clarify and enlarge the program element (budget subactivity) structure of the R.D.T. & E. program. The fiscal year 1974 authorization request represents a major improvement in this regard.

However, there are certain significant variations among the exploratory development programs of the three services which may require uniformity of treatment. These differences are summarized in the following table:

[In millions of dollars]

Budget activity	ARMY		NAVY		AIR FORCE	
	Number of program elements	Amount requested	Number of program elements	Amount requested	Number of program elements	Amount requested
Military sciences	21	174.4			2	35.5
Aircraft	8	24.6			4	123.8
Missiles	3	69.2			1	20.1
Astronautics						
Ships						
Ordnance	10	41.9			2	35.0
Other equipment	10	59.3	7	287.4	2	47.7
Management						
Total	52	369.4	7	287.4	11	262.1

An examination of this table raises the following questions:

1. Why is there such a large variation in the number of program elements among the services—7 Navy, 11 Air Force, and 52 Army?
2. Why is the entire Navy exploratory development program under a single budget activity—Other Equipment?
3. Why is there no exploratory development identified under the Astronautics and Ships budget activities?

These differences, for example, make it difficult to review the exploratory development programs on a consistent basis, and in the case of the Navy it inflates one budget activity at the expense of all the others.

The Department of Defense is requested to examine the structure of the exploratory development programs of the Army, Navy, and Air Force with specific reference to the foregoing questions and incorporate any required changes in the submission of the fiscal year 1975 authorization request.

INDEPENDENT RESEARCH AND DEVELOPMENT

Summary of Committee Position

The committee considers that the Department of Defense is continuing to do a commendable job of complying with the provisions of Section 203, Public Law 91-441, which established restrictive language and procedures to control the amount of funds reimbursable to contractors for independent research and development.

Background

Section 203 established permanent language involving the expenditure of funds appropriated to the Department of Defense for the purpose of Independent Research and Development (I.R. & D.), or Bid and Proposal (B. & P.). For the purpose of this report these activities will be referred to as I.R. & D.

Major provisions of this section require that (a) the Secretary of Defense negotiate advance agreements each year with major defense contractors as to the dollar ceiling on funds which are to be reimbursed by Defense for these purposes (b) these advance agreements be based on company submitted plans which are subject to technical evaluation by Defense, (c) dollar penalties are imposed by Defense when such advance agreements cannot be reached, (d) the work for which payment is made has, in the opinion of the Secretary of Defense, a potential relationship to a military function or operation, and (e) the Secretary of Defense submit an annual report to the Congress on or before March 15 of each year advising of the results of implementation of this section.

In accordance with paragraph (c) of Section 203, the Secretary of Defense has submitted the annual report to the Congress as required. The Chairman of the Research and Development Subcommittee made a comprehensive report to the Senate on May 8, 1973 (Congressional Record pages S8570 through S8583). The report included complete details of the DOD report for calendar year 1972 transmitted on March 14, 1973, copy of Department of Defense Instruction dated September 27, 1972 for completion of I.R. & D. project technical evaluation forms, copy of letter dated June 5, 1972, from the com-

mittee to the Comptroller General requesting that a further examination of the actions taken by Defense to implement Section 203 be conducted and that a report including recommendations and comments from industry be submitted to the committee, and report of the Comptroller General B–167034, dated April 16, 1973.

Highlights of Department of Defense Report for 1972

The data reported by the Department of Defense for calendar year 1972 is summarized below:

(*a*) The amount of payments to contractors for I.R. & D. as reported a year ago was $754 million for 1969, $714 million for 1970, and $673 million for 1971. The Department of Defense estimated at that time that the amount for 1972 would be within a few percentage points of the amount reported for 1971.

(*b*) The revised amount for 1971 is $668 million, which is approximately the same as the $673 million estimated for 1971 last year, and covers 77 contractors. On a comparable basis, the current estimate for 1972, covering the same 77 contractors, amounts to $738 million, $70 million more than 1971. This increase is caused by two factors. The first accounts for $32 million and represents "burdening" which is an application of allowable overhead as explained in the report. The second accounts for the remaining $38 million of the increase and represents increased expenditures of contractors for I.R. & D. and B. & P. that are largely the result of inflation. The net effect is an increase of 5.7 percent.

It is noteworthy that the estimate of $738 million for 1972 is lower than the $754 million reported for 1969, and if inflation is taken into account, the amount for 1972 would be significantly lower than this $16 million difference.

Estimate for Calendar Year 1973

The Department of Defense has stated that, aside from the effects of inflation, the estimate for calendar year 1973 should approximate the amount of $738 million reported for 1972.

The Department of Defense also stated that no significant policy changes have been made involving implementation of Section 203, and the existing policies are resulting in full compliance with the law.

General Accounting Office Recommendations

The Comptroller General Report B–167034, dated April 16, 1973, contains the following recommendations:

> In its prior report, GAO suggested that the Congress clarify section 203. Since then, however, the Government's support of I.R. & D. and B. & P. has been the subject of several intensive studies.
>
> "GAO does not recommend that any changes be made in the law at this time, pending thorough consideration of the results of these studies and the suggestions for improvements and alternative actions which emanated from them. GAO plans to use these studies and to continue its examination of the area, considering such matters as:
>
> "Recommendations on I.R. & D. and B. & P. by the Commission on Government Procurement and dissenting positions.

"Recommendations from a study by DOD's I.R. & D. Policy Council.

"Possible inequities to the Government when contractors develop products under I.R. & D. programs in defense/space cost centers and market them in commercial cost centers.

"Concerns of industry that some smaller companies receive inequitable treatment.

"Alternative means of insuring equitable allocation of I.R. & D. and B. & P. costs.

"Upward trends in contractors' B. & P. expenditures and a corresponding reduction in innovative I.R. & D., which could possibly adversely affect the national industrial technology base."

Conclusion

The committee concludes that substantial and satisfactory progress has been made during the past year in further implementing the provisions of Section 203. While there is general satisfaction to date in the Department of Defense and in industry, additional time is needed to complete the implementing actions and acquire more experience as a basis for any changes which may be indicated as necessary to existing law. The General Accounting Office is in agreement with the need for additional time, and has expressed its intention to continue with the examination of this subject.

The committee intends to follow these actions closely and consider the requirement for any possible further legislative actions in conjunction with the review of the fiscal year 1975 authorization request.

CHEMICAL AND BIOLOGICAL WARFARE

Summary of Committee Position

The committee is satisfied that the Department of Defense is complying with the provisions of Section 409, Public Law 91–121 and Section 506, Public Law 91–441, which established certain restrictions concerning development, procurement, handling, transportation, storage and disposal of chemical and biological delivery systems and agents. The subject of the study on the use of herbicides and the effects of defoliation in South Vietnam is discussed next in the report.

The Director of Defense Research and Engineering, when he testified before the committee, was asked to bring the committee up to date on the Department's compliance with the aforementioned provisions of law relating to chemical and biological warfare (CBW), and to indicate if any problems had been encountered in implementing these provisions which would indicate a need for a change in language. His response was satisfactory and appears in detail on page 1054, Part 2 of the hearings on the fiscal year 1974 authorization bill.

Review of Current National Policy

The Department of Defense presented a review of current national policy relating to CBW, including the following statement of overall mission objectives:

Present U.S. policy on chemical warfare and biological research is based on Presidential decisions of 25 November

1969 and 14 February 1970. The President on 25 November 1969 stated that the U.S. renounced the use of lethal biological agents and weapons, and all other methods of biological warfare and announced that the U.S. would confine its biological research to defensive measures such as immunization and safety measures. The President also reaffirmed the U.S. policy of no first use of lethal chemical weapons and extended this no first use policy to cover the use of incapacitating chemical agents. On 14 February 1970, the policy on biological agents and weapons was extended to include toxins.

The biological research program is a defensive effort oriented primarily toward medical research for the development of vaccines, prophylactic and therapeutic measures, and safety and protective measures. There is an R. & D. program for the development of a biological detection and warning system to alert U.S. forces when they have been attacked by biological agents so that proper protective measures may be taken.

The objective of the chemical warfare program is to deter the use of chemical weapons by other Nations and to provide a retaliatory capability if deterrence fails. This includes a defensive program aimed at providing the equipment and procedures necessary to warn of, withstand, and recover from the effects of a chemical attack against U.S. forces. Even though the U.S. has signed both the Geneva Protocol of 1925 and the Biological Convention of 1972, neither of these have been ratified by the Senate.

Program Proposed for Fiscal Year 1974

The chemical and biological warfare program for fiscal year 1974, which is consistent with the requirements of law, amounts to $124.5 million for all appropriations. This reflects a reduction from the levels of $149.5 million in fiscal year 1972 and $125.4 million in fiscal year 1973. The committee recommends approval of those items and amounts which are contained within these totals and proposed in the fiscal year 1974 military procurement authorization bill.

STUDY ON USE OF HERBICIDES IN SOUTH VIETNAM

Background

Section 506(c), Public Law 91–441, directed the Secretary of Defense to make arrangements with the National Academy of Sciences for the conduct of a study on the effect of using herbicides and the ecological and physiological effects of defoliants in South Vietnam, and to report the results to the Congress.

Interim reports of the study have been made to the committee, and their contents, as well as a complete chronology of events, have been reported to the Senate (Congressional Records of October 6, 1971, Pages S15995–S16001, and March 3, 1972, Pages S3246–S3254).

Accomplishments During Fiscal Year 1973

The Department of Defense states that during fiscal year 1973, study teams under the auspices of the National Academy of Sciences made many visits to South Vietnam and conducted detailed examinations

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related to the various study objectives. These included herbicide, agricultural, and animal husbandry studies, soil studies, studies of natural biological systems, mangrove and semi-deciduous forests, studies in human ecology, medical effects, epidemiological-ecological effects, socio-economic and psychological effects, and recommendations for remedial measures if found necessary.

The on-site scientific studies were completed in February 1973. The study group then was in the data analysis phase leading to final report preparation. The contract was on schedule with the final report due to be submitted to the Department of Defense by August 31, 1973, for review and transmittal to the Congress by September 30, 1973.

No funds were required to support this contract in fiscal year 1974.

Delay in National Academy of Sciences Study

The committee now has been advised by the Department of Defense that the National Academy of Sciences has stated that the August 31, 1973, date for delivery of the final report cannot be met. This is because the conclusions of one essential section of the report, an assessment of damage to inland forests, has been challenged in the review process within the Academy.

The Department of Defense is arranging to provide additional photography for examination by the Academy Committee which should hopefully resolve any questions.

The Academy has requested an additional period of time not to exceed three months to perform this evaluation.

Because it is desirable that the final report, together with background information, be a complete and credible report, capable of withstanding challenge, the Department plans to concur with the Academy request. The final report would then be made available to the Department of Defense by November 30, 1973, in time to permit submission to the Congress by December 31, 1973.

The Department states that this extension of three months is not expected to require any additional funds to be provided in fiscal year 1974. The committee is satisfied with these arrangements.

Provision for Possible Follow-on Study

The committee considers that when the required study is completed and the final report is submitted to the Congress by December 31, 1973, the requirements of Section 506(c), Public Law 91–441, will have been completely satisfied, and that with the termination of United States military operations in South Vietnam, any follow-on studies or activities which may be required will become the responsibility of federal agencies other than the Department of Defense.

To provide for the possibility of any such follow-on effort, the committee addressed a letter to the Department of Defense on May 15, 1973, which stated as follows:

> "If it is the opinion of the Department of Defense that any additional study, subsequent to the filing of the final report as required by law, is desirable or necessary, the Department of State, the Agency for International Development, or other non-Defense agencies, such as the Environmental Protection Agency or the Department of Health, Education and Welfare, would be the appropriate organization to

support that work. The funds required for this purpose should be rather nominal in relation to the total programs of these agencies, and, therefore, should be accommodated from available resources without requiring specific Congressional authorization and appropriation action.

"It is requested that the Department of Defense discuss this matter with these various agencies in order to provide for an orderly transition of this work, if determined to be necessary, upon conclusion of the Defense related effort. If this occurs, scientific personnel in the Department of Defense may continue to participate as necessary, short of providing any direct financial support."

Copies of this letter were sent directly to the following federal agencies and committees of the Congress having a potential interest:

Department of the Interior
Department of Agriculture
Department of State
Agency for International Development
Environmental Protection Agency
National Science Foundation
Department of Health, Education, and Welfare
Senate Committee on Foreign Relations
Senate Committee on Appropriations
Senate Committee on Labor and Public Welfare
Senate Committee on Agriculture and Forestry
Senate Committee on Interior and Insular Affairs
Senate Committee on Commerce
House Committee on Appropriations
House Committee on Agriculture
House Committee on Foreign Affairs
House Committee on Interior and Public Affairs
House Committee on Interstate and Foreign Commerce
House Committee on Merchant Marine and Fisheries

The Director of Defense Research and Engineering advised the committee by letter dated May 25, 1973, that the Department stands ready to provide an orderly transition of their effort into the program of other agencies if areas of work are identified for continuation.

The National Science Foundation advised the committee by letter dated May 29, 1973, that members of the staff of that agency would review the National Academy of Sciences report as soon as it is available, and would expect that informed suggestions then could be provided regarding further action which may be needed, as well as appropriate mechanisms.

The National Academy of Sciences advised the Director of Defense Research and Engineering by letter dated June 5, 1973, that there are and will be continuing questions relating to herbicide use in Vietnam and Southeast Asia which may well involve further effort by the Academy, and that the Academy would appreciate being kept advised of any plans.

The Environmental Protection Agency advised the committee by letter dated June 11, 1973, that it shares the committee's interest in the study and will be happy to discuss the report with the Department of Defense when completed.

Conclusion

The committee is satisfied that the requirements of Section 506(c), Public Law 91–441 are being met by the Department of Defense, and will continue to monitor compliance through completion of the study by the National Academy of Sciences and submission of the final report to the Congress.

The committee will continue to report on all of these matters to the Senate and will monitor the orderly transition by the Department of Defense of any follow-on effort as a result of satisfactory completion of the study, to such other agencies of the government as appropriate.

The committee invites the attention and participation of other committees of the Congress, which may have an interest in such follow-on effort that could require other agencies of the government under their cognizance to request authorization and appropriation of funds to support these efforts in future years.

PROJECT SANGUINE

Committee Recommendation

The committee recommends approval of the full $16.7 million requested for project Sanguine with the specific understanding that this does not represent a commitment to or approval of full-scale development.

Development Plan

The Sanguine development plan is based on the major defense system acquisition policies which involve proceeding through the various stages of research, development, test and evaluation prior to any final decision on production. The plan is based upon a series of independent sequential decisions which precede the Validation Phase. This phase consists of two separate parts to be followed by the Full Scale Development Phase and, if this is successful, by the Production Phase. Each of these decisions coincides with the submission of the proposed authorization requests for separate future fiscal years. This will provide the Congress with the opportunity to follow the progress of the development program and to decide upon the recommendations for each step in the program. Approval for Sanguine to enter the Validation Phase was given by the Secretary of Defense in January 1973, at which time it was indicated that for planning purposes the initial operational capability for a Sanguine system, if built, would be located in Texas. This change from the original plan for location in Wisconsin is understood not to be a commitment, and the Department of Defense will provide the committee with details of the economic and technical considerations supporting site selection prior to final decision.

Activities During Fiscal Year 1973 and Planned for Fiscal Year 1974

Three parallel competitive contracts were awarded to industry in April 1973 for the Validation Phase. These contracts cover an 11-month period and will provide the basis for a selection of a single contractor for a possible subsequent full-scale development. These contracts require about half of the $16.7 million requested for fiscal year 1974. The remaining funds are needed to continue support of

research and environmental compatibility studies. The objectives for the Validation Phase are to verify the following items by competitive industry participation:

(*a*) Technical aspects of proposed contractors' designs

(*b*) System costs, including life cycle cost, and schedule estimates

(*c*) Design, fabrication, and tests of the receiver subsystem

(*d*) Risk analysis of the system components and subsystems

The contractors' efforts during the Validation Phase are divided into two major parts. These are preliminary development, which includes tradeoff studies, design, analysis, submarine receiver development, risk analysis, and test planning. The other part is preliminary design, which provides individual contractor's design concepts in a preliminary design package for use in developing better cost estimates, identifying design areas requiring further engineering evaluation and providing for submission of the contractor's proposal for the Full Scale Development effort.

The Validation Phase does not require a decision on final location, size or type of system to be built. However, it is an essential step which must be taken in the logical sequence of efforts to fully define and resolve all of the engineering aspects of the Sanguine system prior to entering into full-scale development in fiscal year 1975. The fiscal year 1974 funds requested for Sanguine provide only for the continuation of the Validation efforts. Various technical reviews are scheduled during the Validation Phase to ensure proper review prior to proceeding to each part of the Validation Phase.

Feasibility and Environmental Considerations

A formal hearing was held to provide the committee with a complete update on the Sanguine program and to provide a comprehensive understanding of the technical, environmental, and cost aspects involved. The Navy has continued to cooperate to the full extent in providing a large body of scientific data to permit a better understanding and interchange with outside scientists and engineers. This has been accomplished through presentations at professional societies' meetings and publications of papers on Sanguine in appropriate technical journals. This effort will continue, and only that data which is classified because of national security considerations will be withheld.

An update of the Environmental Impact Statement (EIS) of the Research, Development, Test and Evaluation activities will be filed with the Council on Environmental Quality in the latter part of fiscal year 1974. In addition, a new EIS for Project activities of the Sanguine program will be filed, coincident with completion of full-scale development, and prior to requesting approval to proceed into the production phase. The National Academy of Sciences—National Academy of Engineering reports on the evaluation of technical feasibility of Sanguine contain certain recommendations for further theoretical studies. These studies are being carried out by the Navy on a continuing basis.

Summary of Program Progress

During fiscal year 1973, additional communication demonstrations were conducted between the Wisconsin Test Facility and a nuclear powered submarine deployed at operational depths and at opera-

tional speeds in the Eastern Atlantic. In addition, a 14-mile section of Sanguine antenna was buried at the Wisconsin Test Facility and a communication test was accomplished between the test facility and a land based receiver in Norway. The results of these tests conclusively demonstrated that there is no difference between the radiated signal from a buried Sanguine antenna and a Sanguine antenna installed on an overhead line.

The committee is encouraged with the results of these tests, which provide proof of the ability of even the very small test facility to communicate with operational submarines. Sanguine thus is an established candidate for a much more survivable and creditable means of communications to our strategic deterrent systems in time of war, and also should prove of distinct value to our tactical forces, primarily nuclear powered attack submarines. The committee will continue to closely follow the progress of this program, including in particular those efforts which provide evidence that system operation will not be detrimental to man and his environment.

HUMAN RESOURCES RESEARCH AND DEVELOPMENT

Committee Recommendation

The committee has again examined the Human Resources Research and Development Program in specific detail and recommends approval of the full $62.0 million as requested. A fiscal summary of this program for fiscal years 1972 and 1973, and the amount requested for fiscal year 1974, is presented in the following table:

[In millions of dollars]

	Fiscal year 1972	Fiscal year 1973			Fiscal year 1974 request
		Budget request	Approved by Congress	Current program	
Education and training	20.3	19.6	18.6	19.1	22.3
Personnel systems and contemporary personnel problems	7.8	12.0	11.4	8.9	12.6
Manpower systems management	8.7	8.3	7.8	7.1	9.1
Human factors in systems development and operation	11.9	12.9	12.9	13.0	14.4
Overseas operations and planning factors	4.2	4.7	4.7	3.1	2.2
Policy planning studies	1.1	1.5	1.5	1.4	1.4
Total	54.0	59.0	56.9	52.6	62.0

The fiscal 1974 request for $62.0 million represents an increase of $9.4 million over the final fiscal year 1973 program, but only a net increase of $5.1 million, or approximately 9 percent, over the level approved by the Congress for last year. This net increase over the level approved by the Congress results from increases which total $7.7 million for the four areas of Education and Training, Personnel Systems, Manpower Systems, and Human Factors, which are offset in part by combined reduction of $2.6 million in the two foreign area research programs of Overseas Operations and Planning Factors and Policy Planning Studies. The increases are attributable in large measure to increases in cost of living and also the increased emphasis on programs such as computer-aided training, research in drug abuse, and the all-volunteer program.

Human Resources Research Program Objectives

The objective is to achieve maximum effective use of military manpower in a time of reduced force structures and decreased aptitude levels available for many critical jobs. The zero draft environment will require full utilization of personnel of diverse aptitudes, interests, and motivational levels. In addition, special human resources problems for the military departments have been created by general trends in our society regarding race relations, attitudes about discipline, the use of drugs, national priorities and even the role of the armed services. Solutions to many of these problems can have a major impact on future military effectiveness and readiness.

The committee reviewed the primary objectives of the Human Resources program which are: (1) maintaining and improving the performance of military servicemen; (2) accession, classification, training, utilization, sustainment and career management of an adequate manpower base to accomplish Defense missions; (3) reduction of life-cycle cost of weapons system ownership; and (4) developing data and investigating the decisionmaking process to enable decision makers to make sound, factual, cost effective analyses about the Department of Defense personnel, training, and manpower development system.

Committee Considerations

In the Secretary of Defense's report to the Congress, he stressed that in attaining an All-Volunteer Force in fiscal year 1974, it is necessary to assure the requisite number of qualified personnel to man and sustain the forces essential for national security. This requires a balance between manpower and other defense costs so as to maximize national security within personnel and budget limitations. Manpower costs for fiscal year 1974 are 56 percent of the total defense costs. The Department of Defense Human Resources Research and Development program has as its primary objective the development of techniques, methods, and procedures to achieve maximum effective use of military manpower at minimum cost.

The committee continues to recognize that research focused on the Department of Defense personnel, training, and manpower system is of critical importance, and that the Human Resources Research and Development program can result in improved force effectiveness and reduced manpower costs, both being problems of primary concern. These are the efforts to be emphasized during fiscal year 1974. The committee also notes that the Department has implemented certain management changes to achieve better coordination of research on manpower problems common among the military services. This progress also will continue during fiscal year 1974.

Continued Decline in Foreign Area Research and Policy Planning Studies

Department of Defense involvement in foreign area research, such as policy planning studies and overseas operations and planning factors, has been a matter of congressional concern for a number of years. The committee recognizes that there is a legitimate Defense interest in these areas but considers that such research is primarily and more appropriately within the assigned mission of the Department of State,

and that direct Defense involvement should be reduced. The committee noted last year that the fiscal year 1973 request for these areas was reduced from the level approved by the Congress for fiscal year 1972. The fiscal year 1974 request is still further reduced from the comparable level approved by the Congress in fiscal year 1973—a reduction of $2.6 million, from $6.2 million to $3.6 million. In broader perspective, the fiscal year 1974 request for foreign area research represents a reduction of $12.5 million from the $16.1 million level of fiscal year 1968—a reduction of 78 percent. The committee is satisfied that, consistent with committee guidance, the Department of Defense has maintained active participation in all of the activities of the Under Secretaries Committee for Foreign Affairs Research (USC/FAR), the interagency foreign area research planning and coordination group.

INCREMENTAL PROGRAMING OF R.D.T. & E.

Background

The incremental programing policy provides that only those funds required for work in a given fiscal year are included in the authorization request for that fiscal year for most classes of research, development, test and evaluation effort.

The Senate committee report number 92–359 (page 98) on the fiscal year 1972 Military Procurement Authorization Bill established certain principles as the basis for annual incremental programing for the Research, Development, Test and Evaluation appropriation. This resulted from an examination of the practices of the various military departments and defense agencies which revealed a marked variation in the interpretation and application of this concept. The Senate committee report number 92–962 (page 116) on the fiscal year 1973 Military Procurement Authorization Bill urged that the Department of Defense make greater efforts in the implementation of a uniform policy on incremental programing of research and development throughout the Department, not only in the preparation of the fiscal year 1974 budget, but also in the execution of the fiscal year 1973 budget.

Implementation by Department of Defense

During the review of the fiscal year 1974 authorization request, Defense witnesses were questioned as to the steps they had taken to implement these policies. The committee was impressed with their statements that significant progress had been made in realigning their research and development programing requirements to conform with the policy, and with the resultant improved management of their research and development programs.

Updating and Restatement of Policy

The incremental programing policy already prescribed by the Senate has been in effect for a sufficient period of time to provide the experience necessary to update and clarify its provisions. To achieve this objective, the staff of the committee worked with representatives of the Department of Defense, the Military Departments, and the General Accounting Office to determine what further actions should be taken to implement incremental programing policies. This resulted in the conclusion that the incremental programing ground rules, as stated in Committee Report 92–359 (page 98) and subsequent corre-

spondence should be clarified, consolidated and promulgated as a complete and current policy statement. The result of these efforts follows:

Annual authorization requests for Research, Development, Test and Evaluation projects and programs are prepared on an incrementally programed basis. Generally, the budget year estimates of the amounts to be programed for individual research and development projects or programs to be performed either by agencies of the government or by contract will be formulated to cover all "costs" expected to be incurred during a twelve-month period, including, however, only those costs which are necessary to further the project towards its objective during that increment of the total schedule.

The term "costs" includes not only the estimate of actual costs to be incurred during the described incremental time period (work performed) such as salaries and wages paid and material consumed; "costs" also include other liabilities which will accrue to the government, which have to be created during the time period to further the project or program such as lead time orders to be placed for project-related material and equipments and subcontracts awarded, with the following exceptions: For major weapon systems (development programs in excess of $100 million) which are being developed over several years utilizing a prime contractor, funding requirements for first-tier subcontractor costs on reimbursable type contracts of $5 million or more will be limited to a 12-month period not necessarily coincident with the fiscal year in which funds are requested, but not more than 12 months beyond the end of the fiscal year for which funds are authorized. The amounts of all first-tier subcontracts executed on a fixed-price basis may be considered as "costs" under the above definition. However, as has been the practice of the Air Force to some extent, the application of the incremental programming policy for fixed price first-tier subcontractors should be encouraged throughout the Department of Defense. This treatment of first-tier subcontractors is in accord with the views contained in the General Accounting Office report B–167034 dated April 18, 1973.

The Department of Defense projects and programs and the related requests for authorization of appropriation of funds to finance their execution will be developed and presented in accordance with the following principles:

a. Annual estimates of initial financing needed for new major weapon systems and other development programs and projects requiring several years to complete, and which involve multi-year contracts, should be formulated to cover costs expected to be incurred during that fiscal year. Generally this will represent a nine-month or lesser period for the initial increment. The second and succeeding increments will be programmed and financed for periods up to 12 months coincident with that respective fiscal year. However, on an exception basis, approved specifically by the Secretary of the Department involved, the period to be financed for major weapon systems may extend up to three months beyond the end of the fiscal year for which funds are requested to be authorized. In this regard, the Department should make every effort to align subsequent year funding requirements on an annual basis coincident with the fiscal year, although it is recognized that there may be circumstances where this will not be feasible.

b. In cases of research and development projects to be performed by private concerns where full completion of the project is expected within a maximum period of 18 months, and where either (1) it is considered that there is no logical way to divide the work and, therefore, it is in the best interests of the government to finance the project in full, or (2) it is expected to be clearly infeasible to limit the contract to a shorter period, or (3) that the planned technical effort makes it clearly evident that no responsible contractor can be found who will accept a contract for a less-than-completion increment, the authorization request may provide for financing of more than twelve months, but will not exceed eighteen months.

c. In cases of projects included within the research category which are to be performed by educational institutions or institutes affiliated with educational institutions, where it is considered in the best interest of both the government and the institution to provide necessary stability to attract and retain the required skilled personnel to work on problems of vital interest to the Department of Defense, the authorization request may provide for initial financing of such research projects up to a maximum increment of 36 months with annual renewal increments limited to no more than 12 months.

d. In general, the authorization request covering the cost of operation and maintenance of government-owned research, development, and test installations will provide for financing of such installations on an annual basis coincident with the fiscal year concerned. However, in the case of research and development tasks and projects issued to governmental installations by Project Order or other authorized Government Work Order, the authorization request may provide financing for governmental installation labor, material and support to carry on these tasks for projects for twelve month increments which extend no more than the first three months into the year succeeding the budget year.

While it is intended that the foregoing guidelines will be applicable to program execution as well as program formulation, the committee recognizes that there may be circumstances which could delay the start of an annual increment (such as legal, administrative, or technical problems). The two-year availability of funds authorized for the Research, Development, Test and Evaluation appropriation provides the necessary flexibility for program execution in those circumstances.

The General Accounting Office Reports No. B–167034 of April 18, 1973, and of May 15, 1973, concerning incremental programming used by the Department in the formulation of the fiscal year 1974 budget request, concluded that under the incremental funding criteria agreed to between this committee and the Department of Defense, for the ten major weapon systems reviewed, nearly all the work to be performed with fiscal year 1974 funds conforms to incremental programming principles and coincide with the fiscal year.

Summary

The above language supersedes and constitutes a complete revision and restatement of the policy as represented previously in committee reports and correspondence with the Department of Defense. The committee has received testimony from the various Department of Defense witnesses that this policy has been instrumental in accomplish-

ing the more timely and effective use of authorized and appropriated funds. This continues to be a primary objective for the research and development program. The revised incremental programing policy was worked out to the mutual satisfaction of the committee and the Department of Defense.

The General Accounting Office, which has contributed significantly in monitoring the implementation of this policy on a sampling basis, will be requested to continue with this review under the updated guidelines.

MAJOR WEAPON SYSTEMS DEVELOPED UNDER COMPETITIVE COST REIMBURSEMENT TYPE CONTRACTS

The committee is concerned with the apparent, wide disparity in the amount of funds awarded to the two contractors selected from a greater number to conduct a competition for development of a major weapon system under various types of contracts. During recent years, contracts were awarded by the Army for four major weapon systems and by the Air Force for one major weapon system in this category. These are shown below together with the amounts awarded to each of the respective contractors involved.

Program and company:	In thousands of dollars
Utility tactical transport aircraft (UTTAS) airframe:	
Sikorsky Aircraft	61,900
Boeing/Vertol	91,300
XM-1 prototype tank:	
Chrysler Corp	68,117
General Motors Corp	87,000
Advanced attack helicopter:	
Bell Helicopter Co	44,700
Hughes Helicopters and Hughes Aircraft	70,300
Counterbattery radar:	
Sperry Rand	5,400
Hughes Aircraft	6,300
A-X aircraft:	
Fairchild-Hiller	41,100
Northrop	28,800

The committee was advised by the Army that the large variations in the amounts awarded to two contractors may reflect a number of different reasons. These include different technical approaches which provide completely different prototypes, aircraft prototypes with different quantities of engines such as a twin engine aircraft competing with a 4-engine aircraft, to obtain the advantages of competition, or the fact that one contractor is more advanced than another in technology and, therefore, does not require as much money as the contractor who is behind.

The five examples cited above happen to be Army and Air Force programs, but all the military services are involved. Selecting UTTAS for the purpose of discussion, the committee questioned the Project Manager concerning the reason for the 50 percent higher amount awarded to one contractor as compared to the other. He responded as follows:

> "The information requested is source selection sensitive and would jeopardize the competitive nature of the development. Essentially, the competitors were the two lowest bidders that submitted responsive offers. The higher cost of the Boeing/Vertol contract is acceptable to the Army because the competitive

nature of the program is important and will ultimately result in lower UTTAS production costs and life cycle costs. I will, however, provide you individually the information which will answer your question."

The explanation provided later to the committee did not set aside the concern that there may be a need for the Department of Defense to examine the criteria, policy and procedures contained in the Armed Services Procurement Regulations (ASPRs) and other directives to insure that the source selection process is being uniformly applied, and that the interests of all parties involved, including the government, are equitably considered and fully protected.

For a weapon system, such as UTTAS, where the technical risk is relatively low because "off-the-shelf" technology is employed, and where the same engine is to be used by both contractors, a variance of 50 percent between the two contracts appears excessive. This is in no way intended to reflect adversely upon the capabilities of either contractor.

In a broader sense, the committee is concerned with the possibility that one contractor who has the foresight to invest substantial amounts of his own funds in research and development in anticipation of a requirement for development of a new weapon system may be awarded a contract with less funds than his competitor. In such a case, the competitor may receive more money to "catch-up" in the interest of competition. Such a practice, which could penalize rather than reward the forward thinking contractor, may well discourage ingenuity and inventiveness on the part of industry because it could remove the important motivation for technical excellence.

There are other methods for obtaining the benefits of competition. For example, if the planned inventory requirement is large enough to warrant a second source for production. The development or initial production contract may require a "bid package" to be provided to the government for use in competing follow-on procurement.

The Department of Defense is requested to examine the criteria, regulations, and procedures which govern these matters and advise the committee what, if any, changes should be made as a result of the committee's views. The General Accounting Office also will be requested to participate in this review and submit its independent findings and recommendations to the committee.

FEDERAL CONTRACT RESEARCH CENTERS

Committee Recommendation

The committee recommends approval of a ceiling of $254,200,000 proposed by the Department of Defense for all appropriations for support to be provided by the Federal Contract Research Centers (FCRC's) during fiscal year 1974.

This amount, which has been adjusted for comparability to establish the FCRC's on a consistent annual incremental programing basis coincident with the fiscal year, provides only for an estimated five percent cost of living increase over the fiscal year 1973 Congressional ceiling.

As in the past, this ceiling is available to the Secretary of Defense with complete flexibility to adjust among the FCRC's within this total subject to normal reprograming procedures but not otherwise subject to prior Congressional approval. A breakdown of the total of $254,200,000 appears in the following table:

[In thousands of dollars]

	Fiscal year	
	1973 ceiling	1974 recommended ceiling
ARMY		
R.D.T. & E. appropriation:		
Aerospace Corp	3,163	3,670
Applied Physics Laboratory-Johns Hopkins University	80	85
Lincoln Laboratory	8,935	9,500
Mitre Corp	1,524	1,450
Total, R.D.T. & E	13,702	14,705
Other appropriations	1,320	1,220
Total, Army	15,022	15,925
NAVY		
R.D.T. E. appropriation:		
Aerospace Corp	2,364	3,200
Applied Physics Laboratory-Johns Hopkins University	31,485	33,060
Applied Research Laboratory-Penn State University	5,613	6,345
Center for Naval Analysis	9,150	9,640
Lincoln Laboratory	1,235	1,450
Mitre Corp	76	200
Total, R.D.T. & E	49,923	53,895
Other appropriations	12,022	11,605
Total, Navy	[1] 61,945	[1] 65,500
AIR FORCE		
R.D.T. & E. appropriation:		
Aerospace Corp	36,991	40,151
Analytical Services, Inc	1,840	1,950
Applied Physics Laboratory-Johns Hopkins University	800	800
Lincoln Laboratory	26,628	27,860
Mitre Corp	24,582	26,078
Rand Corp	8,500	8,700
Total, R.D.T. & E	99,341	105,539
Other appropriations	33,348	32,316
Total, Air Force	132,689	137,855
DEFENSE AGENCIES		
R.D.T. & E. appropriation:		
Aerospace Corp	1,200	1,425
Analytical Services, Inc	100	150
Applied Physics Laboratory-Johns Hopkins University	725	1,390
Center for Naval Analysis	88	95
Institute for Defense Analysis	9,200	9,620
Lincoln Laboratory	8,260	8,450
Mitre Corp	4,011	4,379
Rand Corp	6,144	6,500
Total, R.D.T. & E	29,728	32,009
Other appropriations	1,886	2,911
Total, Defense agencies	31,614	34,920
SUMMARY		
R.D.T. & E. appropriation	192,694	206,148
Other appropriations	48,576	48,052
Total	[1] 241,270	[1] 254,200

[1] Excludes $1,700,000 in fiscal year 1973 and fiscal year 1974 for Applied Physics Laboratory, University of Washington.

Developments During the Past Year

The committee is satisfied with the actions of the Department of Defense in establishing and implementing policies designed for the more effective management of the FCRC's in accordance with the long-standing Congressional concerns over these organizations. Details of these specific actions were provided to the committee by the Director of Defense Research and Engineering when he testified on April 17, 1973 (pages 805 through 807, and 1017 through 1019, Part 2 of committee hearings on the fiscal year 1974 military procurement bill). At that time he concluded, "I am confident that the new policy of FCRC management is a workable arrangement over the long term and will provide the stability we need in a framework acceptable to the Congress."

Conclusion

The committee continues to recognize the importance and unique capabilities of the FCRC's insofar as they are essential to the satisfactory accomplishment of essential national defense programs.

The committee also recognizes the actions taken by the Department of Defense in dissolving the special FCRC relationship during the past year with the Research Analyses Corporation (RAC) and with the Human Resources Research Organization (HUMRRO). Moreover, the Director of Defense Research and Engineering advised the committee by letter dated July 24, 1973, that the FCRC status of the Applied Physics Laboratory, University of Washington (APL/UW) is to be terminated commencing August 1, 1973, and that after that date, standard procurement procedures would apply to any additional work required.

The committee will consider the possibility of discontinuing the establishment of annual dollar ceilings on the FCRC program during the review of the authorization request for fiscal year 1975.

USE OF SPECIAL TERMINATION COSTS CLAUSE ON CERTAIN RESEARCH AND DEVELOPMENT CONTRACTS

Under the standard Armed Services Procurement Regulation (ASPR) clauses used in an incrementally funded cost-reimbursement type research and development contract, the government is not obligated to reimburse the contractor for costs incurred in excess of the total amount of funds allotted to the contract, including costs allowable under the termination clause. This induces the contractor to monitor the government's liability to make sure that it is not exceeded, and to assure that costs the contractor would incur in the event of termination are recoverable within the total amount of the Government's liability. This may result, in effect, in contractors limiting their costs to provide a reserve to cover termination costs should termination occur. Such action could lead to tying up of considerable amounts of money for potential termination charges and prevent the more effective and timely utilization of appropriations for research and development.

Section 8–712 of the ASPR, however, permits the use of a Special Termination Costs Clause for major research and development contracts in excess of $25 million. This requires the government to pay certain termination costs in a stated amount in excess of the amount otherwise allotted to the contract. The use of this clause enables a contractor to more fully utilize the funds allotted to the contract without the need to provide for a reserve against possible termination.

The Special Termination Costs Clause has not been widely used. The Air Force has used it in a number of their contracts, and the committee is not aware that it has been used by either the Army or the Navy. Although funds are not obligated when the Special Termination Costs Clause is used, in order to assure that the provisions of the Anti-Deficiency Act are not violated in the event of termination, the departments must assure that funds are available to cover this potential liability if termination occurs. However, in view of the unobligated balances available in the RDT&E appropriations, and the relatively small risk of termination of any major contracts that could contain the clause, the risks of not having sufficient funds to meet these potential obligations are minimal. Accordingly, the committee suggests that greater use of the clause be made by all the military departments.

The selective use of this clause on a case-by-case basis would be considered prudent business practice, and the benefits to be derived far outweigh any potential risks which would in any event be manageable.

SUMMARY BY BUDGET ACTIVITY

The Research, Development, Test, and Evaluation authorization request is presented in eight budget activities as summarized below. A description of each budget activity, together with the amounts requested and changes recommended by the committee, with appropriate comments follows:

FISCAL YEAR 1974 R.D.T. & E. REQUEST—CONSOLIDATION BY BUDGET ACTIVITY

[In thousands of dollars]

	Committee recommendation			
	Request	Change	Amount	House bill [1]
1. Military sciences	[2] 520,539	−555	[2] 519,984	[2] 520,539
2. Aircraft and related equipment	1,780,300	−219,570	1,560,730	1,717,400
3. Missiles and related equipment	2,254,000	−173,665	2,080,335	2,204,000
4. Military astronautics and related equipment	602,500	−4,200	598,300	602,500
5. Ships, small craft, and related equipment	620,100	−19,505	600,595	620,100
6. Ordnance, combat vehicles, and related equipment	414,100	−21,872	392,228	393,626
7. Other equipment	1,730,020	−58,800	1,671,220	1,685,031
8. Programwide management and support	636,341		636,341	636,341
Undistributed reduction				−57,740
Total R.D.T. & E.	[2] 8,557,900	−498,167	[2] 8,059,733	[2] 8,321,797

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.
[2] Includes $2,600,000 for Navy special foreign currency program.

1. MILITARY SCIENCES

[In thousands of dollars]

Department	Request	Committee recommendation: Change	Committee recommendation: Amount	House bill [1]
Army	187,400	−55	187,345	187,400
Navy (including Marine Corps)	[2] 141,200		[2] 141,200	[2] 141,200
Air Force	134,600		134,600	134,600
Defense agencies	57,339	−500	56,839	57,339
Total, military sciences	[2] 520,539	−555	[2] 519,984	[2] 520,539

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.
[2] Includes $2,600,000 for Navy special foreign currency program.

This budget activity consists primarily of research and exploratory development of potential military application. The objective of research is to increase the store of fundamental scientific knowledge adaptable to the solution of widely varied future requirements. The objective of exploratory development is to apply new knowledge to the solution of known or anticipated military requirements. The major program under this activity, Defense Research Sciences, provides for basic research in physics, chemistry, mathematical sciences, electronics, materials, mechanics, energy conversion, oceanography, terrestrial and atmospheric sciences, astronomy and astrophysics, biological and medical sciences, and behavioral and social sciences. This activity supports work conducted in in-house laboratories, as well as in other Federal activities, universities, not-for-profit institutions, and industry.

The committee recommends a reduction of $555,000, which consists of $55,000 in the Army program Military Selection, Training, and Leadership which was identified as being unique to Southeast Asia operations. With the cessation of hostilities in Vietnam, there is no requirement to continue to apply research and development funds for that area. It also includes a reduction of $500,000 in the Advanced Research Projects Agency Defense Research Sciences program as explained elsewhere in the report.

2. AIRCRAFT AND RELATED EQUIPMENT

[In thousands of dollars]

Department	Request	Committee recommendation: Change	Committee recommendation: Amount	House bill [1]
Army	301,400	−10,625	290,775	295,200
Navy (including Marine Corps)	252,900	−13,145	239,755	252,900
Air Force	1,226,000	−195,800	1,030,200	1,169,300
Total, aircraft and related equipment	1,780,300	−219,570	1,560,730	1,717,400

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.

This activity supports research, development, test, and evaluation related to aircraft weapon systems, subsystems, and components, including exploratory development in a wide variety of supporting technologies.

The Army program relates substantially to the development of helicopters. Major programs include development of a new Advanced

Attack Helicopter, component development and fabrication of a prototype for a future Heavy Lift Helicopter, continued development of the Utility Tactical Transport Aircraft System (UTTAS), and continued development of the experimental rotary wing research aircraft and tilt rotor research aircraft. The committee recommends a reduction of $10.6 million, consisting of $6.1 million for UTTAS, $3.5 million for the Advanced Attack Helicopter, both of which are explained elsewhere in the report, and $1 million for the Aerial Scout. The Army testified that a Request for Proposal to industry for the Aerial Scout will be issued at the earliest in the fourth quarter of fiscal year 1974, leading to a contract award early in fiscal year 1975. Preparation of the Request for Proposal and other related work may be accomplished by the Army in-house using other funds available for that purpose. Initial contract funding, if required, is appropriate for submission as part of the authorization request for fiscal year 1975.

The major Navy programs consist of the latter phases of development of the F–14A and F–14B high performance fighter, prototype development of V/STOL aircraft for sea control ships, sensors and equipment for the Light Airborne Multi-Purpose Helicopter System (LAMPS), and the CH–53E prototype Heavy Lift Helicopter. The committee recommends a reduction of $13.1 million consisting of $3.9 million for the V/STOL for sea control ships, $5.4 million for advanced propulsion for V/STOL, $1.9 million for the Aerial Target Systems, $1.2 million for the CH–53E, and $.7 million for Airborne Antisubmarine Warfare developments. All of these reductions are explained elsewhere in this report.

The Air Force program provides primarily for continued development of the F–15 all weather air superiority fighter, the B–1 advanced strategic bomber which will replace the B–52G and H aircraft, the Lightweight Fighter prototype, the Advanced Medium STOL Transport prototype, and the A–10 close air support aircraft. The committee recommends a net reduction of $195.8 million. This consists of decreases totaling $209.8 million comprised of $72.2 million for the Subsonic Cruise Armed Decoy (SCAD), $100 million for the B–1, $20 million for the A–10, $15.6 million for the Advanced Turbofan Engine, and $2 million for the Advanced Medium STOL Transport. These reductions are offset in part by an increase of $14 million to initiate development and testing of two prototype two-seat versions of the F–5E international fighter to be designated the F–5F. All of these reductions and the increase are explained elsewhere in the report.

3. MISSILES AND RELATED EQUIPMENT

[In thousands of dollars]

Department	Request	Committee recommendation		House bill[1]
		Change	Amount	
Army	967,200	−148,165	819,035	917,200
Navy (including Marine Corps)	921,900	−22,700	899,200	921,900
Air Force	292,400	−100	292,300	292,400
Defense agencies	72,500	−2,700	69,800	72,500
Total, missiles and related equipment	2,254,000	−173,665	2,080,335	2,204,000

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.

This activity provides for contract and in-house costs of research, development, test and evaluation of ballistic and other missile systems of all types including surface-to-air, air-to-surface, air-to-air, and surface-to-surface. This activity also is a major source of financial support for operation of certain test and evaluation facilities such as the Air Force Western Test Range, the Navy White Sands Missile Range, the Naval Weapons Center at China Lake, and the research and development programs at the Army's Redstone Arsenal.

The Army program provides for continued development of the Safeguard Antiballistic Missile System, the Site Defense Prototype Demonstration program, Antiballistic Missile Systems Technology, the SAM–D Air Defense System, the Stinger Manned Portable Anti-Aircraft Missile System, and the Hellfire Helicopter Borne Air-to-Ground Missile. The committee recommends a reduction of $148.2 million, consisting of $42.4 million for the Light Area Defense program, $19.5 million for the Advanced Forward Area Air Defense System, $70 million for Site Defense and $16.3 million for Safeguard. These reductions are explained elsewhere in the report.

The Navy program provides for continued development of the Trident Submarine-Launched Ballistic Missile System, the Harpoon Anti-Ship Missile, and the Agile Air-to-Air Dogfight Missile. Nearing completion of development are the Phoenix Air-to-Air Missile System, Improved Sidewinder and Sparrow Air-to-Air Missiles, Condor Air-to-Surface Missile and Aegis Fleet Defense Missile System. The committee recommends a reduction of $22.7 million, consisting of $15.2 million for the Strategic Cruise Missile, $3 million for Aegis and $4.5 million for Surface-Launched Weaponry, Systems and Technology, all of which are explained elsewhere in the report.

The Air Force Program provides for continued development of improvements to the Minuteman System, the Advanced Ballistic Reentry System (ABRES), which supports reentry vehicle technology, and the Advanced ICBM Technology Program which has been reoriented to a mobility concept. The Committee recommends a reduction of $100,000 in the Minuteman program as explained elsewhere in the report.

The Defense Agencies program supports strategic technology under the cognizance of the Advanced Research Projects Agency. The committee recommends a reduction of $2.7 million as explained elsewhere in the report.

4. MILITARY ASTRONAUTICS AND RELATED EQUIPMENT

[In thousands of dollars]

Department	Committee recommendation			House bill [1]
	Request	Change	Amount	
Army	17,900		17,900	17,900
Navy (including Marine Corps)	55,500		55,500	55,500
Air Force	529,100	−4,200	524,900	529,100
Total, military astronautics and related equipment	602,500	−4,200	598,300	602,500

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.

This budget activity provides for research, development, test and evaluation of military space systems and equipment including space-borne, ship-based and ground-based equipment. The objective is to improve space technology for military applications and to investigate

and develop specific military applications of space vehicles. This activity also supports such in-house organizations as the Air Force Rocket Propulsion Laboratory, and the Satellite Control Facility.

The Army program includes development of new ground terminals and subsystems for the Defense Satellite Communications System. The Navy program includes two major efforts whose objectives are to improve Navy capabilities in satellite communications and satellite navigation. The Fleet Satellite Communication System (FLEETSATCOM), when developed and placed in operation will be available to support both Navy and Air Force users.

The Air Force program provides for continued development of a wide range of satellite based military space programs, including advanced surveillance, missile and space defense, satellite communications, and satellite data system. Specific programs supported are a spaceborne ballistic missile early warning system and investigations relating specifically to potential military users of the NASA Space Shuttle program. The committee recommends a reduction of $4.2 million in the Air Force Missile Attack Assessment program as explained elsewhere in the report.

5. SHIPS, SMALL CRAFT, AND RELATED EQUIPMENT

[In thousands of dollars]

Department	Request	Committee recommendation		House bill[1]
		Change	Amount	
Navy (including Marine Corps)	620,100	−19,505	600,595	620,100

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.

This activity provides for research and development effort on radars and sonars, nuclear propulsion, the design of new ships, electronic warfare equipment, and communication and navigation systems. Major effort includes the continued development of new types of surface craft and ships, such as the Surface Effect Ship, which travel on a cushion of air at very high speeds, and have the potential for revolutionizing naval warfare. Also included are the joint development with Italy and the Federal Republic of Germany of the NATO PHM missile carrying patrol hydrofoil ship, the air cushion vehicle Amphibious Assault Craft, and the submarine for the Trident Strategic Ballistic Missile system which ultimately will replace the Polaris/Poseidon fleet. Programs to be continued in fiscal year 1974 also include advanced development and engineering development of reactor propulsion plants, surface antisubmarine warfare, surface electronic warfare, and surface tactical command and control systems. A significant portion of the effort at the Naval Ships Research and Development Center is funded under this activity.

The committee recommends a reduction of $19.5 million, which consists of $11.9 million in the Surface Effect Ship, $300,000 in reactor propulsion plants, $1.0 million in Advanced Command Data System, $284,000 in the A4W/A1G nuclear propulsion plant, $202,000 in the D2W nuclear propulsion plant, $100,000 in the Advanced Design Submarine nuclear propulsion plant, $5.2 million in the NATO PHM, and $500,000 in Submarine Silencing. All of these reductions are explained elsewhere in the report.

6. ORDNANCE, COMBAT VEHICLES, AND RELATED EQUIPMENT

[In thousands of dollars]

Department	Request	Committee recommendation		House bill[1]
		Change	Amount	
Army	240,800	−13,872	226,928	220,326
Navy (including Marine Corps)	50,100		50,100	50,100
Air Force	123,200	−8,000	115,200	123,200
Total, ordnance, combat vehicles, and related equipment	414,100	−21,872	392,228	393,626

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.

This activity provides for the research, development, test, and evaluation of improved artillery, guns, rocket launchers, mortars, small arms, mines, grenades, torpedoes, nuclear and chemical munitions, combat and combat support vehicles both wheeled and tracked. Also included is the principal support for research and development activities at several Army arsenals and the Naval Ordnance Laboratory at White Oak, Md.

The Army program provides for development of the New Main Battle Tank prototype (XM1), the Mechanized Infantry Combat Vehicle (XM723), Armored Reconnaissance Scout Vehicle (XM800), Towed 105mm Howitzer (XM204), Towed 155mm Howitzer (XM198), and Bushmaster rapid fire weapon system. The Committee recommends a reduction of $13.9 million consisting of $3.9 million for Bushmaster, and $1.6 million for the antitank assault weapon, TOW, both of which are explained elsewhere in the report. Also included is a reduction of $8.4 million in the nuclear munitions program. The Army advised that coincident with the termination of Atomic Energy Commission development of the 155mm XM517 and 8 inch XM673 projectiles directed by the Joint Congressional Committee on Atomic Energy, the Army requirement for development of adaption kits for these projectiles also would be terminated.

The Navy program provides for the late stages of development of the Captor Anti-submarine (ASW) mine, development of Marine Corps multi-shot portable assault weapon, lightweight air defense weapon system to replace Redeye, and other surface-launched munitions and fire control systems.

The Air Force program includes development of improved guns for the A–10 close air support aircraft, and the F–15A air superiority aircraft, and programs exploring the feasibility of military applications for lasers. The committee recommends deletion of $8 million requested for development of the laser close air support weapon system as explained elsewhere in the report.

7. OTHER EQUIPMENT

[In thousands of dollars]

Department	Request	Committee recommendation		House bill[1]
		Change	Amount	
Army	335,900	−50	335,850	335,900
Navy (including Marine Corps)	523,600	−150	523,450	523,600
Air Force	516,900	−46,200	470,700	471,911
Defense agencies	353,620	−12,400	341,220	353,620
Total, other equipment	1,730,020	−58,800	1,671,220	1,685,031

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.

This activity provides for research, development, test and evaluation of equipment which is not separately provided under the other budget activities. Examples of the types of programs included are communications and electronics, communications security, signal support of intelligence operations, electronic warfare, surveillance and target acquisition, automatic data processing systems, chemical and biological defense, nuclear power systems, mapping and geodesy, night vision, command and control systems, training devices, combat feeding, clothing and equipment, medical equipment, ocean engineering, undersea surveillance, and Navy laboratory independent exploratory development.

The Army program includes such major developments as TRI-TAC, a new multichannel tactical communications system, TACFIRE, which is the Tactical Fire Direction System, STANO, the Surveillance, Target Acquisition and Night Observation System, chemical and biological agent detection and protective equipment, and counterbattery and countermortar radars. Also included is much of the support of the Army Land Warfare Laboratory and the Deseret Test Center. The committee recommends a reduction of $50,000 for the Land Warfare Laboratory because it covers a requirement which is unique to Southeast Asia operations. With the cessation of hostilities in Vietnam, there is no requirement to continue to apply research and development funds for that area.

The Navy program includes all of the Navy exploratory development program, advanced and engineering developments in undersea surveillance, hi-energy laser development, intelligence equipment, tactical command and control, aerospace ocean surveillance, manpower and training development programs, and related Marine Corps programs. The committee recommends a reduction of $150,000 in the environmental protection program as explained elsewhere in the report.

The Air Force program contains the primary functional area of command and control. The two most important developments in this area are the Airborne Warning and Control System (AWACS), to provide the Air Defense and Tactical forces with the means to detect and engage enemy aircraft, and the Advanced Airborne Command Post which will replace the present EC-135 aircraft for command and control of the armed forces during periods of emergency. Many other development tasks are included involving communications, electronic countermeasures, reconnaissance, surveillance, and air

traffic control approach and landing. This activity also supports the Air Force Ground Electronics and Human Resources Exploratory Development Laboratories, as well as the Electromagnetic Compatibility Analysis Center. The committee recommends a reduction of $46.2 million, consisting of $4.2 million for the Advanced Airborne Command Post and $42 million for AWACS as explained elsewhere in the report.

The Defense Agencies program primarily includes work supported by the Advanced Research Projects Agency (ARPA) in Nuclear Monitoring Research and Tactical Technology, by the Defense Communications Agency (DCA) in DOD-wide communications systems, by the Defense Mapping Agency (DMA) in Mapping, Charting and Geodesy, and by the Defense Nuclear Agency (DNA) in Nuclear Weapons Effects development and test. The committee recommends a reduction of $12.4 million consisting of $1.8 million for ARPA, $900,000 for DCA, $400,000 for DMA, $5 million for DNA, and $4.3 million for other programs. All of these reductions are explained elsewhere in the report.

8. PROGRAMWIDE MANAGEMENT AND SUPPORT

[In thousands of dollars]

Department	Request	Committee recommendation		House bill[1]
		Change	Amount	
Army	58,100		58,100	58,100
Navy (including Marine Corps)	146,400		146,400	146,400
Air Force	390,300		390,300	390,300
Defense agencies	41,541		41,541	41,541
Total, management and support	636,341		636,341	636,341

[1] House action is shown for information only since the House bill was not referred in time for committee consideration.

For the Army and the Navy, this activity provides for those costs of operation, management, and maintenance of research, development, and test facilities which are not distributed directly to the other budget activities. For the Air Force it provides for certain costs of central administration such as the Air Force Systems Command Headquarters and divisions, as well as several large research, development, test and evaluation centers. This activity also provides for expanded joint service effort in the initial operational test and evaluation of new systems.

This program provides for pay of civilian personnel, travel expenses, supplies, and equipment and other general and administrative Research, Development, Test, and Evaluation expenses. For the Army, it supports these costs at major command headquarters except Department of the Army Headquarters, and includes international cooperative research and development with allied nations, and improvement of technical information activities. For the Navy, it also supports the Arctic Research Laboratory at Point Barrow, Alaska, and continued development of an Anti-Ship Missile Defense Test Range. For the Air Force, it also supports such activities as the Flight Test Center, Edwards Air Force Base, California, the

Armament Development Test Center, Eglin Air Force Base, Florida, Aeronautical Systems Division, Wright-Patterson Air Force Base, Ohio, and the Space and Missile Systems Organization, Inglewood, California.

The committee recommends approval of the full amounts requested which essentially is the same amount provided for fiscal year 1973 as adjusted to include provision for cost of living increases that already have occurred or are anticipated during the year.

TITLE III—ACTIVE DUTY MANPOWER AUTHORIZATION

Background

Under Section 509 of Public Law 91–441 the Congress is required to authorize active duty military personnel end strength for each of the military services. The committee held hearings in open session on June 11th, 12th and 13th, 1973, and heard testimony from Defense military manpower experts on the active duty military personnel strengths requested by the Department of Defense. Based on this testimony and the information provided in the Military Manpower Requirements Report for FY 1974 submitted by the Department of Defense, the committee staff has conducted a comprehensive analysis of military personnel requirements.

Committee Recommendations

Reduction of 156,100 DOD-wide manpower to be apportioned by the Secretary of Defense—7% reduction

For the reasons discussed below, the committee recommends a reduction totalling 156,100 in active duty end strength, or 2,076,802 rather than the 2,232,902 included in the budget as shown below:

Active-duty end strength:	
DOD proposal	2, 232, 902
Committee action	—156, 100
Committee recommendation	2, 076, 802

In addition the committee provides in the bill that the Secretary of Defense will prescribe the apportionment of the reduction among the Army, Navy, Marine Corps and Air Force with the proviso that the reduction be applied to the support forces of the military departments to the maximum extent practicable. The Secretary of Defense shall report to the Congress within 60 days after enactment on the manner in which the reduction is to be apportioned to the military departments and mission areas described in the Military Manpower Requirements Report. That report will include the rationale for each reduction.

Requirement for Statutory Authorization of DOD Civilian Manpower

In addition to the recommendations on the active duty end strength authorization, the committee recommends amending the law to require authorization of Defense Department civilian employee end strengths.

Requirement for Military Overseas Assignments

The committee added amendatory language providing that beginning FY 1975 the annual Defense Manpower Requirement Report will include a full justification and explanation of the manpower required to be stationed or assigned to duty in foreign countries and aboard vessels located outside the territorial limits of the United States.

Discussion

The committee reductions amount to about 7% of the total end strength requested by the Defense Department for fiscal year 1974 and would reduce strength about 9% below the fiscal year 1973 end strength.

Savings in Future Years Resulting From Manpower Reductions

Based on present pay costs the committee reduction of 156,100 once implemented and fully effective, would save about $1.6 billion annually in future years.

Need for a Strong, Efficient Defense

The committee strength recommendations are based upon several major concerns. The first of these concerns is to insure that the United States has a strong defense capability, but one that is also efficient and balanced. The committee is concerned about the trend to fewer forces, but relatively more manpower. The sharp phasedown of force units and force levels below FY 64 levels has not been matched by a corresponding phasedown of manpower and support levels. For example, in FY 74 the Defense Department proposes a 20% reduction of Army Divisions, 37% and 28% reductions of Navy carriers and escort ships, respectively, and a 59% reduction in Air Force heavy bombers below FY 64 levels. But the FY 74 Defense request for manpower was only 16% below the FY 64 level.

The following table compares the changes in forces with changes in total manpower between FY 64 (pre Vietnam) and FY 74:

PERCENTAGE CHANGE BETWEEN FISCAL YEARS 1964 AND 1974

	Percent		Percent
Army:		Marine Corps:	
Air defense batteries	−80	Divisions	None
Divisions	−20	Wings	None
Manpower	−17	Manpower	+3
Navy:		Air Force:	
Polaris-Poseidon missiles	+95	ICBM	+61
Carriers	−37	Strategic bombers	−59
Escort ships	−28	Interceptor squadrons	−80
Amphibious ships	−53	Tactical wings	−5
Manpower	−16	Manpower	−19

Thus in a time of economic difficulty and competing priorities, and despite technological advances that should substitute machines for men, the proportion of manpower to force units rises in FY 74. The committee believes the Defense Department must strive to be lean and ready to provide an adequate defense at reasonable cost and this means finding ways to more efficiently use its manpower resources through better organization and utilization of personnel.

Rising Operating Costs

A second major concern is the sharp rise in operating costs, particularly manpower costs. Research and development, procurement of weapons and material and military construction costs all together add up to only 30% of the total Defense budget. The other 70%—operating costs—has grown from 55% of the budget in FY 64 largely as a result of two factors: rising manpower costs and rising support costs. In that time, pay and allowances of military and civilian personnel have doubled—from $22 billion in FY 64 to $44 billion in FY 74 so that now 56 cents of every Defense dollar goes for pay and allowances. At the same time support costs have also risen so that now 65% of the operating budget goes for support.

It is this double shift of resources which puts heavy pressure on the hard combat force structure and concerns this committee. First there is the shift of resources out of investing in force improvements to operating the current force structure; and secondly there is the shift from operating combat units to support and auxiliary functions. The committee believes manpower costs and support costs must be brought under tighter control. Thus the committee expects that the large proportion of the recommended manpower manpower reduction will be taken in the auxiliary and support areas.

All-Volunteer Force Problems

A third major concern of the committee is the All-Volunteer Force. This concern stems from three major issues: first the All-Volunteer Force concept has added substantially to manpower costs—over $3 billion in FY 74 specifically identified by the Defense Department and substantially more not specifically identified. These costs contribute to the problems mentioned earlier. Second, several witnesses testified that an all-volunteer force was a peacetime concept and that the reserves and draftees would be used in wartime combined with the cost problem it raises a question about the amount of money that should be spent to achieve in the all volunteer force if it is only a peace-time concept. This raises questions about the preparedness of all aspects of the defense manpower system—including the reserves and Selective Service—to respond to emergencies when the active forces are based on a peacetime concept. Thirdly, is the uncertainty over the kind of personnel who will constitute the active duty forces and the kind of institutions the military services will become as their personnel characteristics change. The committee is concerned about the evident difficulties the Defense Department is having in achieving a quality all-volunteer force at a cost the country can afford.

Concern for Manpower Management

Finally, this bill authorizes the total personnel strengths for each service—not the individual people who do them. There would be no way to do that. The Defense Department must recruit, train and assign individuals not to exceed the authorized level of jobs. However, how well the jobs are done depends on the quality of the people and how well they are managed. The committee noted two trends that raise concern: there was a shortfall in people compared with jobs authorized in FY 73. This resulted from recruiting shortfalls this spring. Secondly there was a malassignment of personnel as between combat and support jobs. Combat jobs tend to be undermanned while support jobs—particularly headquarters staffs—tend to be overmanned. Both of these trends place an increased burden on the people who must do the jobs—particularly in the hard combat units. The committee believes that manpower must be managed carefully so that there are enough of the appropriate people available to do the jobs and so that those who are available are assigned according to priorities which give precedence to those jobs that have the most direct bearing on the national security.

Military Manpower Requirements

In making its review of overall Defense military manpower, the committee reviewed each of the major functional categories which require men. The following table shows how the Defense military manpower request is distributed among these categories:

DOD military manpower request (active duty end strengths, fiscal year 1974)

[In thousands]

Strategic Forces	127
General-purpose forces	921
Land forces	525
Tactical air forces	176
Naval forces	182
Mobility forces	38
Auxiliary forces	172
Intelligence and security	62
Communications	49
Research and development	34
Support to other nations	9
Geophysical activities	17
Mission and central support forces	680
Base operating support	265
Medical support	84
Personnel support	28
Training	179
Command	103
Logistics	21
Individuals	333
Transients	89
Patients and prisoners	11
Trainees	220
Cadets	12
Total DOD	2,233
Army	804
Navy	566
Marine Corps	196
Air Force	666

Tightening up Along the Line

There are two ways to review the manpower in these categories.

First, one can assume that the manning is fixed for the units in each category and that there is a fixed relationship between the mission categories at the top and the support categories at the bottom. This "vertical" approach means that changes in manpower can be made by adjusting the mission units (e.g. divisions, ships, aircraft) and then reducing the support tail at the bottom by a proportionate amount. This approach leads to relatively heavy reductions of forces to accommodate manpower reductions.

Secondly, one can assume that the manpower in each category depends primarily on the policies used to carry out the functions in that category although the manpower needed in the various support categories depends on other categories as well. This latter "horizontal" approach looks to tightening up along the line and thus minimizes the impact on combat forces. It is this latter approach that the committee chose in its review. However, the committee did recognize the chain reaction that reductions in one area have on the other areas that support the reduced area. For example, a reduction in command and headquarters reduces the overall need for manpower, and thus

reduces the number of men who must be brought into the service and trained. This "tail" effect was included in the overall committee reductions.

Illustrative Reductions by Service

As a result of the committee review, a number of reductions in the various mission areas and Services were considered. However, the committee decided to require the Secretary of Defense to apportion the reductions among the Services, with the proviso that they be applied to the support areas as much as possible. The following table should not be considered binding but rather illustrative of one way the reduction could be apportioned among the Services:

[Manpower in thousands [1]]

	Fiscal year 1974 DOD request	Illustrative reduction	Resulting authorization
Army	804	−71	733
Navy	566	−46	520
Marine Corps	196	−2	194
Air Force	666	−37	629
Total	2,233	−156	2,076

[1] Totals may not add due to rounding.

Illustrative Reductions by Mission Area

Because the Secretary of Defense will apportion the overall 156,100 strength reduction, the following discussion does not imply specific reductions which must be made but provides an illustration of the various functions and missions considered by the committee in arriving at its overall conclusion.

Support Reductions

By far, the largest share of the total committee recommended reduction came from the various support areas. Support units and functions are found throughout the structure of each of the Services including some of the so-called "mission categories." As pointed out by the Military Manpower Requirements Report for FY 73, similar support functions appear in different categories for different Services because of organizational differences between the Services. As mentioned earlier, the committee approach focused on tightening up on support all along the line. The following areas are illustrative of reductions to the mission support, central support and individual areas that the committee considered.

Command and Headquarters

There are 105,000 authorizations included in the various command/headquarters categories of the FY 74 Defense manpower request broken down as follows:

COMMAND/HEADQUARTERS

[Manpower in thousands]

	Fiscal year—		
	1972	1973	1974
Army	29	31	29
Navy	31	27	25
Marine Corps	8	8	8
Air Force	47	44	43
Total, command manpower	115	110	105

While there has been a decline in the number of command/headquarters authorizations since FY 72, in some areas it has not kept pace with overall reductions in the forces being commanded. Army and Marine Corps command/headquarters manpower remains at the same level as FY 72 despite reductions in the number of troops commanded. The Navy has shut down over 20% of it ships and 15% of its bases and Air Force overall manpower has been reduced by 60,000. In addition to scaling command down in proportion to other changes, a real tightening up is needed on the number of levels and the manning at each headquarters level. Thus the committee believes a minimum 10% reduction in this category would be appropriate.

The committee believes the Department of Defense and each of the Services should make substantial reductions in their headquarters staffs in conjunction with the overall manpower reduction directed by the committee. As combat forces are reduced in peacetime, similar reductions must take place in the "overhead structure" of the military, particularly headquarters staffs and organizations. The urgency to realize maximum economies in the Defense establishment, plus the need to achieve balanced force reductions, dictates that the "hierarchy of command" be reduced.

One of the factors influencing the committee's judgment is as follows:

The Bomber Defense Subcommittee of the Senate Armed Services Committee for 2 years examined the personnel staffing at the North American Air Defense (NORAD) headquarters, as well as the Aerospace Defense Command (ADC), both located at Colorado Springs, Colorado. The Subcommittee urged reductions in these two headquarters or a consolidation of their staffs. It was advised repeatedly that such action was not possible. Finally on June 28, 1973, the committee was told these two major headquarters will be consolidated with a reduction of 930 in personnel, including 8 generals, 24 colonels, and 66 O–5s (Lt. Col.). The committee was advised that this consolidation will result in "no degradation in air defense capabilities." This is a consolidation of a unified command under the Joint Chiefs of Staff, with an Air Force command. The point stressed by the committee is that it can be done if the Defense Department sets its mind to it.

Inevitably reductions involve the exercise of sound judgment. The committee called upon its experience over the past 2 years in reaching its decision. Initially the committee seriously considered establishing a fixed number of personnel reductions in each headquarters. Past experience has shown that unless this is done personnel reductions seldom are ever achieved. However, the committee finally decided to give the various commanding officers in the headquarters listed flexibility in deciding precisely where and in what numbers people should be reduced. The services are advised that this flexibility should not be construed as a means of avoiding the achievement of significant personnel reductions.

For example, the Army is requesting $22.2 billion this year. In our view, the highest priority in the Army is the combat readiness of its 13 divisions. Any other mission is clearly secondary. Therefore, unless the sizable personnel in Army headquarters are appreciably involved in accomplishing this primary mission their justification can and should be questioned.

With this background, the committee recommends a reduction of 5500 people (30%) in the following list of headquarters by June 30, 1974. This would bring assigned staffing down from 18,100 to 12,600. Authorized strengths should undergo comparable reductions. Other military commands should not assume reductions in their commands are not warranted. They should initiate positive action in line with the reductions discussed for the commands listed herein.

The committee requests the Department of Defense to report to the committee by February 1, 1974, on the progress achieved in compliance with this report and its plan to accomplish the balance of reductions by the end of the Fiscal Year.

This report shall include the numbers by rank by which each headquarters was reduced. It should also show the precise reductions in the officer force structure achieved and planned to be achieved during the fiscal year, inasmuch as it is the committee's intention that the positions abolished or reduced shall not be laterally transferred elsewhere in the Defense Department.

One of the objectives sought by the committee is to materially reduce the number of studies and reports that has become a way of life in the defense establishment. This "paper war" must be sharply restricted. It is our hope that smaller headquarters staffs will have a favorable reaction in combating the "paper war," inasmuch as our experience has shown that sizable headquarters staffs generate burdensome "paperwork" requirements to justify their existence.

In addition, the committee would look with favor on significant reductions in the headquarters organizations and staffs in the Washington area. We cannot indefinitely perpetuate an establishment of this size. A reduction approximating 15% would be a reasonable objective by the end of FY 1974.

A. Reductions in Headquarters in Europe

The committee believes sizable reductions can be achieved in the numerous headquarters in Europe. In particular, we cite the following headquarters staffs where the committee felt at least 2,200 of the 9,500 personnel assigned could be eliminated when adequate consideration is given to the U.S. combat forces actually assigned in this area.

	Personnel authorized	Personnel assigned	Date
SHAPE (Supreme Headquarters Allied Powers Europe)	4,827	4,505	July 1, 1973
EUCOM (European Command)	885	965	July 5, 1973
USAREUR (U.S. Army Europe)	1,195	1,250	May 31, 1973
V Corps	328	587	Do.
VII Corps	355	462	Do.
USAFE (U.S. Air Force Europe)	1,565	1,510	Mar. 31, 1973
17th Air Force	43	40	Do.
CINCUSNAVEUR (Commander-in-Chief, U.S. Navy Europe)	190	216	May 31, 1973

1. SHAPE (Supreme Headquarters Allied Powers Europe)

SHAPE is the military arm of the NATO Alliance. As such it has major headquarters with over 17,000 personnel assigned, scattered throughout Europe. In 22 of these headquarters the United States has 25% or 4505 U.S. personnel assigned as its contribution. This number includes 31 U.S. generals/admirals; 141 0–6s (colonels/Navy captains); and 332 0–5s (lieutenant colonel/Navy commanders).

SHAPE essentially has a wartime mission. In peacetime they plan for war. They have little to do with U.S. ground or air forces on a day-to-day basis. The Army and Air Force headquarters in Europe handle their own personnel, training, and logistics matters.

While the committee has no authority or control over the 12,500 allied non-U.S. personnel we do feel the presence of 4,505 U.S. personnel is excessive and recommend substantial reductions by the end of fiscal year 1974. It is our firm conviction that we can ill afford this tremendous number of personnel in these headquarters when it is recognized that there are only 4⅓ U.S. Army divisions in Europe.

2. EUCOM (European Command)

The U.S. maintains a unified command at Stuttgart, Germany. As of July 5, 1973 it was authorized 885 but had 965 assigned. Also, the Committee is aware that this headquarters has added, rather than subtracted, about 150 people in the last 18 months.

The committee believes this headquarters should be reduced substantially. Specifically, the committee feels the justification for the 62 personnel assigned to the Military Assistance Advisory Group (MAAG) office should be intensely reviewed, recognizing that there are significant MAAG personnel assigned to Turkey, Greece, and Spain, where the last of our grant aid programs are being carried out.

The committee believes substantial reductions are justified and necessary in each of the Army, Air Force, and Navy headquarters commands in Europe as well as the two Army Corps headquarters and the 17th Air Force. For example, the need to have 2,200 personnel in the three major Army headquarters appears excessive, once again recognizing that there are only 4⅓ divisions in Europe.

In the case of the Air Force, substantial reductions would appear possible when recognition is given to the fact that there are only nine Tactical Wings located in Europe. Also the Air Force has three major subordinate headquarters in Europe, namely the 16th Air Force Headquarters in Spain with only one Tactical Fighter Wing under its command; the Third Air Force Command in England with four Tactical Wings under its command; and the 17th Air Force in Germany with four Tactical Wings under its command.

The need for the continued existence of the 17th Air Force should be seriously examined by the Air Force. A previous justification to the committee was that it served as a "point of contact" with the West German Government. We feel the main Air Force headquarters could fully discharge this responsibility.

With respect to the Navy, its headquarters in London has been controversial for many years because its peacetime function is command of the Sixth Fleet in the Mediterranean who already possess a full complement of admirals to run the Fleet. In time of war, the NATO commander in Naples, always a U.S. admiral, assumes command of the Sixth Fleet. We believe close attention should be given to the merit of merging the command in London with that in Naples. It is felt that merely because the U.S. Navy commander in Naples has a NATO "hat" in wartime should not present an insurmountable obstacle.

B. Reduction in the REDCOM (Readiness Command) Headquarters

Readiness Command:	
Personnel authorized	395
Personnel assigned	[1] 414

[1] As of July 1, 1973.

The Readiness Command (REDCOM) at McDill Air Force Base, Florida, is a unified command whose mission is to command U.S. based combat forces that are not assigned to someone else. It has no area responsibility. Its main mission is to plan for periodic joint Air Force/Army training exercises.

The committee believes very substantial reductions are possible in this command when close attention is given to its prime mission. The Defense Department should advise the committee in its February 1974 report why a staff of no more than 50 people, headed by one brigadier general, could not discharge the mission of planning the periodic Army-Air Force joint training exercises. In addition meaningful justification should be presented on continuing the existence of this command beyond fiscal year 1974.

C. Reduction in Pacific Command Headquarters in Hawaii

	Personnel authorized	Personnel assigned	Date
CINCPAC	1,082	1,058	July 5, 1973
PACAF	1,260	1,278	Mar. 31, 1973
CINCPAC Fleet	471	513	May 31, 1973
USARPAC	924	1,028	Do.
FMFPAC	784	764	June 21, 1973

There are 5 major commands in Hawaii. The Commander-in-Chief of the Pacific, CINCPAC, is a unified command under the Joint Chiefs of Staff. In addition, each service has its own major headquarters.

CINCPAC has operational control over the forces in the Pacific area. Each service component administers and takes care of its own personnel, training, and logistic matters.

It is our considered opinion that these headquarters staffs should undergo substantial reductions. For example, it is difficult to understand the justification for the Army to have 1,028 people assigned to its headquarters staff in Hawaii, recognizing that the Army division in Korea is the only one in the Pacific west of Hawaii. This situation is all the more questionable when the committee considered the fact that there are 948 people assigned to the Eighth U.S. Army Command in Korea; 123 people assigned to the Army I Corps in Korea; and 274 people assigned to the United Nations/Joint U.S. Forces Command in Korea. Certainly the Second Infantry Division in Korea must be the most supervised unit in the world.

It seems reasonable to conclude that a consolidation of these five headquarters in Hawaii may be the wisest course of action. It would be similar to the effective consolidation recently directed at NORAD/ADC.

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The committee felt that a reduction of at least 1,300 personnel in these five headquarters from a total of over 4,600 personnel would be reasonable and consistent with the combat forces assigned to this area of the world.

What impressed the Committee most is the fact there are 4,641 personnel assigned to these 5 major commands, including 41 generals/admirals; 263 colonels/Navy captains; and 524 lieutenant colonels/Navy commanders. Yet this compares with only 3,950 people assigned to the comparable commands in Europe where we have a far greater number of U.S. personnel.

The Defense establishment must appreciate the need for a reasonable correlation between limited potential combat forces and reasonable headquarters staffing to support these forces.

D. Reduction in U.S. Korean Headquarters

	Personnel authorized	Personnel assigned	Date
United Nations Command/Joint U.S. Forces	312	274	June 30, 1973
8th U.S. Army Headquarters	846	948	May 31, 1973
Korea I Corps	92	123	Do.

The U.S. Army has one division in Korea. Yet, there are three major headquarters over and above the division.

The committee does not feel adequate need exists to maintain 1,345 mostly high-ranking officers in these three headquarters when only one U.S. division and less than one U.S. tactical air wing is located in Korea. We cannot afford the luxury of such heavy staffing in the absence of significant combat forces. Hence a reduction of 50 percent appears reasonable and sound.

E. North American Air Defense Command/CONAD

	Personnel authorized	Personnel assigned	Date
NORAD/CONAD	806	854	June 30, 1973
ADC	1,434	1,267	Mar. 31, 1973

The committee was advised on June 28, 1973, of a proposed consolidation of the North American Air Defense Command (NORAD/CONAD) headquarters with the Air Force Aerospace Defense Command headquarters, both located at Colorado Springs, Colorado.

NORAD is a unified command under the Joint Chiefs of Staff and includes Canadian forces. CONAD (Continental Air Defense Command) is the U.S. element of NORAD, which will be reduced. Canadian forces will be unaffected. Therefore, it is only U.S. personnel in NORAD that is affected.

The Bomber Defense Subcommittee of the Senate Armed Services Subcommittee attempted to obtain reductions in these two headquarters over 2 years ago. This subcommittee met with little success as it was consistently advised that reductions were not possible. All personnel were stated to be essential. The committee compliments those responsible for the recently announced consolidation reducing 930 personnel. In particular, we noted the Air Force statement that "there will be no degradation in Air Defense capabilities."

The committee takes one exception to the recently announced consolidation. The Air Force hopes to reprogram the manpower authorizations into other areas. This would negate any savings. We firmly recommend these manpower authorizations be removed from the force structure and that the report requested of the Defense Department in February 1974 so reflect particularly with respect to the rank 0–5 (Lt. Col.) and above.

F. WSEG (Weapons Systems Evaluation Group)

Personnel authorized	88
Personnel assigned	[1] 83

[1] As of June 30, 1973.

The committee believes earnest consideration should be given to eliminating this group. Its primary function is to serve as a study group for the Joint Chiefs of Staff and DDR&E. Basically it works with civilian personnel at IDA (Institute for Defense Analysis) to incorporate military thinking in IDA's studies. The Advanced Research Projects Agency (ARPA) could handle the study functions performed by this group in addition to their current assignments.

Enlisted Aides

A subject of major interest and concern on the part of the committee was enlisted aides. Enlisted aides authorized to have been flag officers as well as certain captains in the Navy in all of the Services who live in public quarters for the purpose of relieving the officers from minor tasks and details related to their military and official responsibilities.

Testimony before the committee and a GAO study done in April of this year indicated that 1722 enlisted aides were assigned to 970 senior officers. The cost of the enlisted aide program in fiscal year 1973 for personnel costs and training costs was $21.7 million. Based on personnel alone, the average cost per officer served by enlisted aides last year was $22,000.

The committee does not question that senior military officers spend a significant part of their time outside the office or "off-duty" fulfilling essential national, community, and military obligations. Nor does it question that some of the duties performed by enlisted aides allow the officers to concentrate more fully on their primary military and official duties. The committee does, however, take strong issue with the use of enlisted aides in obviously personal services such as babysitting and dog walking.

The military services have taken several steps to respond constructively to criticism of the enlisted aide program, as follows:

Guidelines have been issued on the use and duties of the enlisted aide.

The Army and Marine Corps have c'osed their training courses for enlisted aides. (The Navy and Air Force did not have such courses.)

The committee recommends reducing the number of enlisted aides from 1722 to 1105. The reduction is an overall 36% cut as follows:

Army—Reduction of 90 (510 to 420).
Navy—Reduction of 330 (577 to 247).
Marine Corps—Reduction of 35 (90 to 55).
Air Force—Reduction of 162 (535 to 383).

The savings from reduction would be about $7 million and presumably the termination of the training schools will result in a further saving of about $360,000 per year.

The committee believes that the Secretary of Defense should have the responsibility of allocating the 1105 enlisted aides to generals and admirals living in public quarters. The committee does stipulate that no officer below general/flag rank should be assigned enlisted aides.

Transients

Another large category of manpower reviewed by the committee was the authorization for transients. The transients are extra personnel authorized in each Service to make up for the unproductive time spent by personnel in the travel pipeline. This total DOD request for transient authorization is shown below:

TRANSIENT

[Manpower in thousands]

	Fiscal year—		
	1972	1973	1974
Army	46	34	29
Navy	39	26	28
Marine Corps	11	12	12
Air Force	10	10	19
Total	106	82	88

The number of transients needed depends on three main factors a) the number of people moving, (b) the length of time per move and c) whether additional manpower authorized for transients would substantially improve the manning levels and effectiveness of combat units.

Transient manpower is as costly as other manpower, is very dependent on personnel policies and must be used with great care. The Committee considered a 12% reduction of this category was possible in light of:

1) fewer men moving in and out of the Services as strengths decline and enlistments are lengthened with the phaseout of the draft.

2) fewer men moving within the Services as a result of the withdrawal from Vietnam, cessation of the bombing in Cambodia and longer peacetime tour assignment policies taking effect.

3) except in the Air Force, support areas already tend to be manned above authorization compared with the combat mission areas. Thus it is not clear that more transients would improve manning levels in combat units.

Base Operating Support

This category of manpower is used for those organizations which operate the installations on which the mission forces are based. They provide a wide range of diverse services similar to those provided by local governments, utilities and the service industry. (e.g., airfield and wharf operations, building and road repair, payroll, base supply

and transportation commissaries, libraries, waste disposal, police, etc.). The Defense request for manpower in this category is shown below:

BASE OPERATING SUPPORT [1]

[Manpower in thousands]

	Fiscal year—		
	1972	1973	1974
Army	49	42	38
Navy	52	52	50
Marine Corps	22	19	18
Air Force	186	173	158
Total	319	286	264

[1] Interservice comparisons of this category are not appropriate because of accounting differences between services.

The manpower in this category depends on three factors: 1) the number of forces and mission manpower requiring support, 2) the number of bases on which the forces are located and 3) the level of support—or standard of living—which is set by policy. Except in the Navy, manpower in this category has shown a steady decline as mission manpower is reduced following the withdrawal from Vietnam and bases are closed. The committee observed a 20% reduction in Navy ships and a 15% reduction in major Navy bases had occurred since FY 72, but base support manpower was reduced by only 4%.

Auxiliary Forces

Another major area of committee review were the auxiliary forces. These include manpower for intelligence, centralized communications, research and development, support to other nations and geophysical activities. The DOD manpower request for this area is shown below:

AUXILIARY FORCES

[Manpower in thousands]

	Fiscal year—		
	1972	1973	1974
Army	50	44	45
Navy	38	35	34
Marine Corps	3	3	3
Air Force	96	97	91
Total	187	179	173

Since FY 72 this area has declined about 14,000—about 7% overall. However, in FY 74 increases are proposed for some of the functions within this category while other functions do not decline as rapidly as overall trends. Intelligence and security, the largest single sub-category in auxiliary forces has been subject to intensive review and criticism, such as that recently concerning activities in Europe. It is important to keep these auxiliary activities in balance with the primary mission of each Service. Therefore, the committee felt a reduction of at least 5% could be made in this category.

Training

In fiscal 1974, about one out of every six active military personnel will be involved in individual training—either as a student, instructor, or support staff—at a cost of over $6 billion. The distribution of this manpower for several years is shown below:

	Fiscal year—		
	1972	1973	1974
Army:			
Trainees	104	97	94
Instructors and overhead	65	63	56
Navy:			
Trainees	56	50	59
Instructors and overhead	42	44	42
Marine Corps:			
Trainees	32	27	26
Instructors and overhead	15	14	14
Air Force:			
Trainees	50	50	42
Instructors and overhead	31	31	30
Total DOD:			
Trainees	242	224	221
Instructors and overhead	153	152	142
Total training	395	376	363

The largest share of these resources will be directed toward providing basic military training for about 350,000 new recruits and specialized (skill) training for about 250,000 personnel.

The principal training issue addressed by the committee this year was: how many people need to be given formal skill training and for how long? There are no clear answers to questions of how much training is in fact necessary and what form it should take.

The final 1974 budget reflects trends in some services toward increasing both the proportion of recruits being sent to formal classroom training and average course lengths, as seen below:

	Fiscal years—	
	1970	1974
Percentage of recruits undergoing formal specialized training:		
Army	23	31
Navy	74	85
Marine Corps	(1)	71
Air Force	87	95

[1] Not specified.

	Fiscal years—	
	1970	1974
Average duration of specialized training course (in weeks):		
Army	8.5	10.5
Navy	(1)	11.9
Marine Corps	(1)	10.3
Air Force	16.0	15.0

[1] Not specified.

On balance, a larger percentage of recruits is being sent to formal skill courses for longer periods of classroom instruction. Recent training developments however, have suggested that many skills can be acquired with equal effectiveness through shorter courses and more organized on-the-job training (OJT) programs. A more efficient training system, including carefully planned OJT and incorporating advances in educational technology, need not sacrifice quality of training.

Based on the above considerations and adding the major impact on training that results from manpower reductions in all other areas, the training establishment (trainees, instructors, and overhead personnel) could be reduced by about 11 percent. This is somewhat more than proportionate to the overall reduction because of the large first year impact of manpower reductions on training.

Mission Forces

This category includes the combat units of the strategic and general purpose forces, as well as a large number of units directly supporting those combat units. The extent of support contained in this category varies significantly by service. In addition there are definitional problems which complicate categorizing units within these categories as combat or support. The FY 74 DOD manpower request for these categories is shown below:

MISSION FORCES

[Manpower in thousands]

	Fiscal years—		
	1972	1973	1974
Army	394	447	450
Navy	275	283	273
Marine Corps	98	107	108
Air Force	237	220	217
Total	1,004	1,057	1,048

The major force units to be manned in this category are shown below:

MAJOR FORCE UNITS

	Fiscal y ear—		
	1972	1973	1974
Army:			
Air defense batteries	21	21	21
Divisions	12⅔	13	13
Navy:			
Polaris/Poseidon missiles	656	656	656
Aircraft carriers	17	16	15
Other Navy ships	654	586	523
Tactical air wings	14	14	14
Marine Corps: Division/wings	3	3	3
Air Force:			
ICBM	1,054	1,054	1,054
Bomber squadrons	30	30	28
Interceptor squadrons	10	8	8
Tactical wings	21	21	21
Airlift squadrons	17	17	17

In general, Army mission manpower has increased significantly since FY 72 while the number of major force units has remained level. Navy mission manpower in FY 74 is slightly less than FY 72, but the number of ships has declined substantially. Marine Corps mission manning has increased by 10% since FY 72 while the number of divisions and wings has been constant. Air Force mission manpower has declined about 8% with relatively minor reductions in forces. The same general pattern of increasing manpower per force unit can be seen in comparing FY 74 with FY 64 force levels and requested manpower.

The following table compares the changes in forces with changes in total manpower between FY 64 (pre Vietnam) and FY 74:

PERCENTAGE CHANGE BETWEEN FISCAL YEARS 1964 AND 1974

	Percent		Percent
Army:		Marine Corps:	
Air defense batteries	−80	Divisions	None
Divisions	−20	Wings	None
Manpower	−17	Manpower	+3
Navy:		Air Force:	
Polaris-Poseidon missiles	+95	ICBM	+61
Carriers	−37	Strategic bombers	−59
Escort ships	−28	Interceptor squadrons	−80
Amphibious ships	−53	Tactical wings	−5
Manpower	−16	Manpower	−19

In making its review the committee emphasized the need to keep as many men as possible in the cutting edge of the forces. However, the committee observed several trends taking place within the mission manpower categories—particularly the general purpose forces.

First there were increases in support manpower proposed in several areas. The Army manpower request reflected a 10% increase in the manning level of support increments based in the United States. These increments contain some combat units but the large proportion of units are for support of all kinds. They have been manned at 90% of full TOE strengths for a number of years and all support increments overseas are manned at 90% or less. The Navy proposed including additional shore based maintenance support manpower in the category which includes ship manpower. This was done in the face of a significant decline in ships. The absence of firm justification for these kinds of increases based on the need for specific capabilities raises the concern that instead of a systematic effort to trim down and tighten up all along the line, accounting definitions allow a cosmetic shift to take place.

Another trend the committee observed was in tactical air force manpower particularly in the Navy and Marine Corps. For the Navy, Marine Corps and Air Force the number of wings of tactical air has remained constant but Navy/Marine Corps manpower for Tacair has been rising.

The growth in Navy/Marine Corps tactical air force manpower over the past several years has resulted in over 55% of the total

tactical air manpower being assigned to those two Services as the table below shows:

TACTICAL AIR FORCE MANPOWER

	Fiscal year—		
	1972	1973	1974
Navy	59	66	69
Marine Corps	27	27	28
Air Force	88	78	78
Total	174	171	175

Within the Navy Department ship manning has been declining while tactical air manning has been rising. Tactical air manpower now equals 53% of the manpower assigned to naval force ships compared with 44% in fiscal year 1972. The table below shows the increasing proportion of Navy/Marine Corps manpower assigned to the tactical air mission:

MANPOWER

(In thousands)

	Fiscal year—		
	1972	1973	1974
Navy/Marine Corps:			
Naval force manpower	195	196	182
Tactical Air Force manpower	86	93	97

In the committee hearings, concern was expressed that there was an excessive duplication of effort between Services on the tactical air force mission. In a time when manpower resources must be carefully managed, every effort should be made to insure all the missions this country requires for its security are performed but none should be excessively duplicated. Duplication of one mission will result in neglect of others.

Regional Deployments

The committee also reviewed the worldwide deployments of U.S. forces and manpower overseas. In this review, it was noted that the Defense request included over 500,000 men deployed outside the United States, of which 64,000 would be aboard ships. These regional deployments, excluding Southeast Asia, would be as follows:

	Fiscal year—		
	1972	1973	1974
Western Pacific	181	157	153
Europe and related areas	298	319	319
Other foreign countries	11	9	9
Afloat included in above	(76)	(62)	(64)
Total	490	485	481

The committee decided to allow the Secretary of Defense to apportion the overall 156,100 manpower reduction among the Services and Mission areas. In particular, the Committee did not decide to impose specific peacetime regional limitations on manpower. However, in its review of overall manpower needs, the following observations were made relating to regional manpower needs.

Southeast Asia

The Committee was concerned about the vagueness of and difficulty in obtaining figures concerning the manpower levels in Southeast Asia. A good while after the hearings and the original Defense manpower request, these figures were provided in classified form. The Committee trusts that next year there will be no difficulty in obtaining extensive information on all regional deployments in unclassified form.

In regard to Vietnam, the committee observed that the Army had included a strength of 9,500 troops for Vietnam in its manpower request. This occurred because the Army had prepared its budget and manpower request prior to the announcement of U.S. withdrawal from Vietnam. During the hearings, Army witnesses said that those personnel and their support tail would not be needed to fully man Army force structure in light of the withdrawal from Vietnam. The Army is to be commended for its forthright explanation of this issue.

In regard to Thailand, the committee observed that in March 1973 there were 37,000 Air Force personnel stationed in Thailand. The primary mission of that force was to support the bombing campaign in Southeast Asia. Approximately 16,000 of those personnel would be in addition to those required by the baseline force structure, and were incremental to Southeast Asia operations. The committee also observed that the Congressional restriction ending the bombing campaign would become effective on August 15, 1973.

Korea

The committee noted that about 42,000 U.S. military personnel are stationed in Korea. That has been the same level since FY 71. In 1971 a large modernization program of the military forces of the Republic of Korea was initiated by the U.S. Department of Defense. This program is scheduled to last for 5 years and cost about $1.5 billion. The Secretary of Defense testified in the Spring of 1973 that "further withdrawal of U.S. forces in South Korea should be phased with the completion of the modernization program." The committee observed that by the end of FY 73, 47% of the total funds for the 5 year modernization program had been spent. FY 74 will be the fourth year of the 5 year program which should significantly enhance the Korean capability for self defense.

Europe

The committee believes that the United States has major national interests in Europe that must be safeguarded. On the military side, these interests tend to coincide with those of our NATO Allies. Because of this interrelationship and mutuality of interests, actions on U.S. military forces in Europe must be carefully designed and deliberately carried out. On the other side, because of the changing economic and political situation, inaction is not a viable course. The U.S. economic burden for its troops in Europe is growing as U.S. internal economic

troubles persist and the dollar buys less in Europe. At the same time the evaluation of the relative capabilities of NATO and Warsaw Pact forces is clouded by force improvements on both sides. Some new studies tend to indicate that the force capabilities of NATO more nearly match the Pact than previously thought.

Another question raised in the hearings concerns the design of U.S. forces in Europe. At present about 42% of the force in Europe is for the administration and logistical base for a rapidly expanded tactical force in wartime. At issue is the possible redesign of U.S. forces in Europe to have a proportionately heavier combat element with less of a support base. This redesigned force might have more combat power with fewer total personnel than the present force.

A third major concern of the committee is the burden for NATO defense borne by the United States compared to the NATO Allies. The United States pays about one third of the total NATO Defense cost, excluding the major U.S. contribution to the NATO nuclear shield. The relative national burden of U.S. troops in Europe increases as the dollar is devalued and so does the burden borne by the troops and their families who must live in the European economy. The Committee generally feels that the NATO Allies must make additional contributions to offset both the burden of increased balance of payment drain and the burden of increased budgetary costs of stationing troops in Europe.

In its review of U.S. manpower in Europe, the Committee observed that the actual strength in Europe over the past several years has been about 304,000 not the 319,000 that was authorized. It is this actual strength that has deterrent value, not empty billets. In addition, it was noted that despite a strategy of initial conventional defense, the Army has 2 Sustaining Support Increments (SSI) in Europe. SSI are collections of mainly support units whose primary role is to sustain divisions in combat after the first 60 days of hostilities. Each SSI is manned with about 14,400 troops.

After this extensive review of manpower in the mission categories and regional deployments, the committee felt that a 7% reduction of manpower in the mission categories could be made. Almost all of this would come from support and manning levels within the mission category as opposed to reductions in hard combat units.

Special Issues

All Volunteer Force

During the hearings on manpower there was considerable discussion of the wisdom and feasibility of achieving an all-volunteer armed force. The discussion focused in the following major areas: (1) According to administration witnesses the all volunteer force is essentially a peace time concept. The Reserves would have to be called and a draft instituted to provide manpower for anything but minor skirmishes. (2) The all volunteer force has added substantially to Defense budget costs. Over $3 billion is specifically identified for all volunteer force items in the FY 74 budget and there are substantial other costs. With heavy pressure to hold down overall Defense spending, these additional manpower costs must be paid for by shrinking force levels or by less investment in new equipment. (3) There is still uncertainty concerning the quantity and quality of men that are needed and how many will volunteer for the Armed Forces over the next several years.

For various reasons, the Army and Navy fell short of their authorized strengths for FY 73.

As a result, the committee voted unanimously to adopt the following statement and reporting requirement proposed by Senator Nunn:

Committee Statement on the Volunteer Force

While recognizing that the All-Volunteer Service has been in existence only a short time, the Senate Armed Services Committee is concerned about the evident difficulties the Defense Department is having in achieving a quality all-volunteer force at a cost the country can afford. At this time Defense is cutting its quality standards at the same time it is asking for additional bonuses and experiencing monthly shortfalls in the number of recruits it can obtain. If these trends continue, it could result in a small, very expensive military force made up of people who may not perform the tasks needed for a modern Defense establishment.

As an immediate action, the Defense Department is directed to complete, within 90 days of the publication of the committee report, a report to the Committee which:

1. specifically defines the ranges of quality standards that are acceptable.
2. relates those ranges to the performance needed by the various forces and to total manpower requirements.
3. describes the quality of the current manpower force in the same terms as item (1) above.
4. forecasts the quality characteristics of the manpower force for each of the next 5 years in the same terms.
5. describes the current full annual cost of trying to achieve a volunteer force in terms of total budget and cost per man.
6. defines the maximum acceptable level of annual cost to achieve a volunteer force in terms of total costs, percentages of Defense budget and average cost per man.
7. forecasts the full annual cost of achieving a volunteer force for the next five years in the same terms as item (5) and item (6).
8. shows the overall manpower levels by Services which would require the draft under (a) peacetime conditions and current strategy, (b) peacetime conditions and revised strategies, and (c) wartime conditions (specify scenario).
9. estimates the force levels, maximum and minimum, which may be needed for national security over the next 5 year period.

Women in the Military

Women are being utilized more and more effectively by the armed forces as a large variety of military occupations open up to women. The Military Services, except for the Marine Corps, plan to at least

double the number of enlisted women by fiscal year 1977, expanding from a force of 31,500 in fiscal year 1972 to 80,000 in fiscal year 1977. No problem is foreseen in recruiting qualified women in numbers well above levels recruited in the past. All women who are enlisting are high school graduates, or have GED equivalents, and have average or above mental ability. This has broad implications for the all-volunteer armed force, as the Army has had to reduce its quality requirements to the extent that 50% of those recruited are not high school graduates. One way to move toward remedying the quality problem is to recruit women high school graduates willing to enlist before taking men who are not high school graduates, as long as the skills required are in categories open to women. Also, when shortfalls in recruiting occur, more women can be recruited to meet the quota.

Before 1972, only one-third of the military occupations were available to women. Now 81% of the job specialties are open to women, which is essentially all jobs not related to combat.

The Department of Defense report on Manpower Requirements for FY 75 should include a comprehensive discussion of the role of women in the armed forces, including current policies and plans for the use of women in all job specialties. It is expected that the Services will continue to investigate and change Service regulations and policies that present undesirable or artificial restrictions on the use of women or that make military service less attractive to able women.

Annual Authorization of Civilian Manpower in Department of Defense

The committee recommends an amendment to the law requiring authorization of civilian end strengths and the justification and explanation of civilian strengths in the manpower requirements report. This amendment was recommended because:

(*a*) civilian manpower totals over 900,000 people and costs $13.5 billion, 17% of the total Defense budget in FY 74 compared with 13% in 1968

(*b*) over 90% of the civilians are in support and overhead functions

(*c*) the Congress now authorizes military manpower which is only part of the labor pool and overall manpower cost—it is important to keep a balance in the review of overall manpower

(*d*) this year DoD reports substantial effects to substitute civilians for military personnel. It is hard to determine whether this is an efficient procedure without examining both military and civilian manpower in relation to the job to be done. The committee expressed its concern that reductions in military manpower were being offset by increases in civilian manpower with no net saving in Defense costs.

Other Amendments

The committee recommended several other amendments including:

(1) requiring a more complete explanation and justification of manpower stationed outside the United States to be included in the statutory report on manpower requirements

(2) deleting the requirement to authorize training loads separately from manpower requirements

(3) requiring the explanation of support and overhead manpower requirements to be related to the combat forces and support policies in the statutory report on manpower requirements

(4) making permanent law the provision that excludes members of the Ready Reserve and National Guard ordered to federal active duty from the active duty authorized strength and requiring a report from the President on any units of the Ready Reserve ordered to active duty.

Defense Manpower Report

The Military Manpower Requirements Report continues to serve as the principal vehicle for the communication, understanding and analysis of the Defense manpower program and its relation to forces. As such, it is important to retain the same framework as used in previous years. This framework, in program category format, is also used for internal Defense planning and management. While some small revisions may be needed, there should be no changes which would obscure the distinctions made by the current categories and no changes that are not accompanied by thorough explanations and by data displays showing past and present manpower figures using both revised and unrevised categories. In addition, the Committee feels that the following changes should be incorporated in the Manpower Report:

(1) addition of cost data—to include manpower costs and summaries of other costs—in each manpower category and a separate section discussing trends and factors influencing manpower costs;

(2) addition of a section describing personnel inventory trends, gains and losses by appropriate categories and personnel policy changes—i.e. the personnel plan which would accompany the manpower authorization plan;

(3) additional display and discussion of future year planned authorizations for background against which to evaluate the authorization request for one year;

(4) addition of an annex which shows the year to year changes in the planned allocation of the manpower authorized in each major category to the working level units performing the various missions of the category. This would include the number of units of each type in each category and the allocation of manpower to them.

Need for Improved Management of Resources

The committee believes that there is a pressing need for improved efficiency in the management of Defense resources. This is particularly true of manpower which now costs 56% of the budget. If current cost trends continue, the 1974 Defense program would cost $114 billion in 1980. $63 billion of that 1980 budget would be for manpower—manpower costs alone would be $13 billion more than the entire budget in 1964.

Qualified and dedicated men are a scarce resource for DoD; they will become scarcer as manpower costs rise and the volunteer service takes full effect. Thus the Defense Department must come to grips with two basic questions:

1. Is each and every job for which an authorization is requested essential to the national security mission?

2. How can the various jobs and units be reorganized to perform the mission more efficiently?

Department of Defense leaders must take the lead in and be accountable for insuring these questions are asked in every nook and cranny of the Department of Defense. This includes the active duty forces, the reserves and civilians in the military departments and Defense agencies. There must be real reform and efficiency if we are to maintain a strong, capable Defense establishment in the face of economic difficulties and competing national priorities. The old approach is no longer adequate.

This committee also believes in the military man. He has traditionally been called upon to sacrifice and bear hardships for this country. He should be managed wisely and fairly and be given rewarding and challenging jobs. This puts a high demand on the skills of the personnel manager. But the personnel manager and the manpower planner must work together. One assigns the people to the jobs developed by the other. A comprehensive plan encompassing both people and jobs is needed to insure people are used well for jobs that contribute most of our common defense. Without such a careful and comprehensive plan we will continue to be surprised by one problem after another and waste the talents of our people.

TITLE IV—PERSONNEL STRENGTH FOR THE SELECTED RESERVE

Summary of Request

In the Fiscal Year 1974 budget the Department of Defense requested authorization for an average strength total of 910,515 personnel to make up the seven Selected Reserve forces of the Reserve Components. This proposed force structure is 66,000 less than requested in Fiscal Year 1973.

The budget request, broken out by Reserve Components, was as follows:

Army National Guard	379,144
Army Reserve	232,591
Naval Reserve	116,981
Marine Corps Reserve	39,735
Air National Guard	92,291
Air Force Reserve	49,773
Coast Guard Reserve	11,300

Committee Recommendation

The committee recommends approval of all of the request in the numbers submitted except for the Naval Reserve to which the committee recommends an additional 4,500 personnel for a total number of 121,481. The discussion below sets forth the reasons for this recommendation.

Sectional Analysis

Section 401 of the bill sets the annual strength figures at which each of the Reserve Forces are to be programed for the fiscal year.

The average strength formula requires that although the manpower levels may vary up or down during the fiscal year that on the average the Services maintain the numbers set by the Congress. These average strengths are computed on a man-year basis.

Section 402 provides for proportionate reduction of any Reserve component by the total authorized strength of units of that component which are on active duty (other than for training) at any time during the fiscal year. This proportionate reduction is applicable also to the total number of individual members, not in units, serving on active duty without their consent during the fiscal year. When units and/or individuals are released from active duty, proportionate increases are permitted.

New Dependence on Reserve

Special note should be taken of the fact that under the bill statutory ceilings are placed on the Active forces leaving only the Guard and Reserve as a source for immediate augmentation of the Active Forces should the President declare a national emergency or request other authority from the Congress.

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In the event of a national emergency the President has authority under current law to call to active duty up to 1 million from the Reserve and Guard, this number coming primarily from the Selected Reserve as created by the Congress in 1969. The Selected Reserve was established to identify the best trained units capable of call-up in the event of a contingency or in the early stages of a full mobilization.

This point deserves attention because of the expiration on June 30, 1973 of the draft authority. With a ceiling on Active forces and no draft authority the Reserves and Guard under current law are the only source of additional military manpower.

Throughout the Vietnam war the President relied almost completely on the draft as the means for meeting the additional manpower needs of the Armed Forces, with only extremely modest use of the Reserve Forces. With the expiration of the authority for inductions, no longer will the President have this alternative. He must rely on the Reserves.

Thus, the new dependence on the Reserve and Guard increases the need to adequately man, equip, and train the Reserve and Guard forces.

In the past 15 years relatively small increments of the Guard and Reserve have been called to active duty to meet military emergencies. The most recent mobilization occurred between January and May of 1968 as a direct result of the Tet offensive in South Vietnam.

During that period 36,972 Reserve personnel were ordered to active duty involuntarily.

These individuals and units performed well. They represented all of the Reserve components except the Marines and Coast Guard. The bulk of this call-up came from the Army and Air National Guard.

General George S. Brown, the new Chief of Staff of the Air Force, testified during his confirmation hearings in June that the Air Reserve and Guard units under his command in Vietnam were superior to Regular units because of their unit cohesion and high state of training.

While the 1968 call-up was small, future mobilization may be larger in view of the fact the President will not have the draft authority to utilize as was the case during the Vietnam War.

Modernization of Reserves

The Total Force Concept, enunciated 4 years ago, has been defined as encompassing the Free World military and related resources and to include, among other forces, both Active and Reserve Components of the United States.

This concept has led to an almost wholesale revision of policies and directives affecting the Reserve and Guard. The result has been increased support in all vital areas such as equipment, personnel, training, facilities, and budgeting.

As a result, the Reserve Components budget has increased from $2.5 billion in fiscal year 1971 to $4.3 billion in fiscal year 1974.

Modern equipment has been flowing into the Reserve and Guard during the past few years and a recent Army reorganization has placed additional emphasis on building up the Guard and Reserve.

Although significant sums have been spent in equipping the Reserve Components, large infusions of equipment came directly as a

result of our withdrawal from Vietnam and the reduction in Active Forces.

Operating under a modified Table of Organization and Equipment the Army Guard and Reserve will have received from 80 to 85 percent of their T.O. & E. by the end of fiscal year 1974. The current equipment levels for the other components are as follows: Marines, 93 percent; Air Guard, 91 percent; Air Reserve, 90 percent; Naval Reserve—Surface Program (less ships), 34 percent; and Naval Air—102 percent.

The committee views with favor the increased emphasis given the Guard and Reserve in the way of new equipment and other similar support. This modernization should be completed promptly and the new levels maintained in view of the increased responsibility facing the Reserve Components.

Reserve Manning

A shortfall of approximately 62,000 Reserve and Guard personnel during 1973 provided a clear indication of the serious manning problems which are ahead.

In past years many young men chose service in the Reserve forces over active duty. Now that the draft authority has expired, the committee feels adequate manning will be the major problem facing the Reserve and Guard.

Strength levels have already declined from 982,514 in fiscal year 1971 to the 910,515 requested in fiscal year 1974. Most of the Reserve Components experienced problems in maintaining the minimum average strengths established by the Congress last year.

Testimony revealed that to maintain the requested levels in fiscal year 1974 approximately 74,000 new accessions will be required. Of this number, it was estimated that some type of bonus would be necessary to attract 46,000 of them.

Presently, all of the Reserve Components have programed in fiscal year 1974 to attain 85 percent or more of the personnel needed to meet their 30-day mobilization requirement. The lone exception is the Naval Reserve whose force is less than 50 percent of the 30-day requirement.

The Reserve Components are faced not only with the problem of attracting new personnel but also of re-enlisting a reasonable percent of those presently in their ranks.

In testimony it was pointed out that the fiscal year 1974 request is seen as a floor from which it is hoped the Reserve and Guard could rebuild towards the requirements. It is more likely, however, that the Reserve Components will drop to even lower levels as the nation adjusts to the all-volunteer concept in a no-draft environment.

The committee feels manning percentages can be strengthened through more realistic training and stronger leadership.

All the Reserve Chiefs should give more attention to this area. Although money and equipment are essential the Reserve and Guard cannot be viable unless personnel are motivated and trained properly.

Naval Reserve

The committee demonstrated concern that the Naval Reserve was reducing its requirement by 12,000, including the release from the Selected to the Ready Reserve of approximately 8,000 enlisted men.

The management of the Naval Reserve and the Navy's commitment to Reserve needs comes into question in view of the fact that the Navy established in 1969 that its ultimate strength objective would be 139,000. While programing to a strength of 129,000 for the past several years the Navy proposed in the fiscal year 1974 request to take Naval Reserve strength down to 116,981.

A portion of this reduction was based upon a paper transfer which in no way reduces requirements. The remaining cut was justified on the basis of a need to cut personnel in order to obtain funds for ship overhauls.

The committee feels budgetary constraints may have resulted in the Navy giving inadequate attention to the importance of the 30-day manpower mobilization levels.

Although there are apparently significant numbers of Naval Reservists in an unsatisfactory drill status, the committee restored 4,500 of the 12,000 Navy reduction. This addition results in a committee recommendation of 121,481 as compared with the Navy request for 116,981.

Testimony indicated many Naval Reserve non-participators were disillusioned due to weak training programs, and the lack of a sense of purpose in what they were doing. This problem, while not unique with the Naval Reserve, nevertheless indicates a lack of authority and leadership. The Secretary of the Navy, and the other service secretaries where appropriate, should take the necessary action to assure that training programs create an attitude of participation rather than discouragement.

The vast majority of Naval Reservists have a minimum of 2 years fleet training and are a valuable asset in a period when bonuses are being requested to attract or hold enlisted Reservists.

Testimony in the House indicated the cut in the Naval Reserve budget would result in "about 4,500 to 4,600 capable men, capable Reservists, being forced out."

Coast Guard

The committee expressed particular interest in the Coast Guard Selected Reserve.

It is felt that the Coast Guard Reserve is an important element of our Reserve Components and is meeting an important requirement.

Testimony revealed that the 11,300 strength level requested was the probable upper limit of manning potential for fiscal year 1974. This is a reduction of 500 from fiscal year 1973.

During the past year the Coast Guard instituted a standardized readiness evaluation system for all of its units. This should be instrumental in not only measuring capabilities but in serving as a gauge for increasing efficiency.

New Era Ahead

As the Reserve Components move into the new era of an all-volunteer active force without reliance on the draft, special attention should be given to reducing any elements which are marginal in meeting initial mobilization requirements.

The committee will take an interest in the next year in exploring areas where the dollars spent may be bringing back less than full value. As the money and equipment to the Reserve Components increase and new dependence results it is expected that a more realistic structure will take form.

Some of the components have already made force structure changes in order that the limited defense funds may be channeled to the areas where the country can get the most for its money. This is a step in the right direction.

To assist in its review of the Reserve Components, the committee requests that the Defense Department provide a report on the FY 75 and future Reserve manpower requests at the same time and in same format as the statutory report on requested active duty strengths.

Readiness sufficient to justify deployment and performance at a high level of efficiency are the only purpose of Guard and Reserve units. Towards this end all efforts must be directed.

Cost of Reserve Components

The $299.6 million increase in the fiscal year 1974 budget occurred in the following categories: Pay, $133.5 million; Maintenance and Operations, $284.6 million; Military Construction, $4.4 million, and Active Personnel Support, $5.4 million. There was a decrease in procurement of $128.3 million.

Some of the major causes for the increase in Pay pertain to annualization of the January 1973 pay raise, strength changes and training in the Army Reserve Enlisted Program. In Operations and Maintenance, the major reasons for the increase were the annualization of the January 1973 pay raise, depot maintenance, technician man-year increases, recruiting, maintenance, supply, and fuel costs.

FISCAL YEAR 1974 RESERVE COMPONENTS PRESIDENT'S BUDGET

[Dollars in millions]

Component	Personnel [1]	O. & M.	Construction	Subtotal	Procurement [2]	Total
Army National Guard	$643.4	$545.6	$35.2	$1,224.2	$295.9	$1,520.1
Army Reserve	522.2	264.1	40.7	827.0	78.1	905.1
Naval Reserve	222.5	167.5	17.9	407.9	6.2	414.1
Marine Corps Reserve	70.9	11.4	2.4	84.7	11.7	96.4
Air National Guard	191.2	525.7	20.0	736.9	30.5	767.4
Air Force Reserve	145.4	229.2	10.0	384.6	21.8	406.4
Total	1,795.6	1,743.5	126.2	3,665.3	444.2	4,109.5
[3]						285.4
Grand total						4,394.9

[1] Does not include active personnel support for reserve components.
[2] Distribution of procured equipment is accomplished by separate schedule and extends over several years.
[3] Active personnel support for reserve components.

Committee Approved Strengths

The average strengths as recommended by the Army, Navy, Air Force, and the Department of Defense for fiscal year 1974 are shown on the chart below. Also shown are the authorized strengths for fiscal

year 1973 and projected strengths at the end of fiscal year 1973 and the committee recommendations. The strength level for the Coast Guard Reserve as recommended by the Department of Transportation and by this committee is also shown.

FISCAL YEAR 1974 RESERVE COMPONENTS PAID DRILL AVERAGE STRENGTHS

Component	Authorized average strength fiscal year 1973, Public Law 92-436	Projected end strength, fiscal year 1973	Average strength budget submission, fiscal year 1974	Committee recommendation
Army National Guard	402,333	376,704	379,144	379,144
U.S. Army Reserve	261,300	226,630	232,591	232,591
Naval Reserve	129,000	131,124	116,981	121,481
U.S. Marine Corps Reserve	45,016	41,584	39,735	39,735
Air National Guard	87,614	88,876	92,291	92,291
Air Force Reserve	51,296	49,428	49,773	49,773
Total DOD	976,559	914,346	910,515	915,015
Coast Guard Reserve	11,800	11,800	11,300	11,300

TITLE V—MILTARY TRAINING STUDENT LOADS

Committee Recommendations

For the reasons discussed below, the committee recommends approval of the student loads as requested.

Background

Under Public Law 92–436 the Congress, commencing with fiscal year 1974, is required to authorize average military training student loads. Training "loads" represent the average number of military personnel that would be found attending formal military training courses on any given day during the year. Included are the following types of training:

(1) *Recruit training* includes all basic initial enlisted training for all services for both active and reserve components. In all services, it represents an introduction of the new enlisted man or woman into military life. In addition, in the Army and Marine Corps, recruits are taught common military skills, such as the fundamentals of individual weapons and combat skills.

(2) *Specialized training* provides both officer and enlisted personnel with the skills and knowledge necessary to perform specific jobs or to operate or maintain specific pieces of equipment.

(3) *Officer Acquisition training* includes training programs through which officers are procured, such as the Service Military Academies, the Reserve Officers Training Corps, Officer Candidate Schools and Enlisted Commissioning programs.

(4) *Flight training* provides the basic undergraduate flying skills for pilots, navigators and Naval Flight Officers. This category does not include the major formal advanced combat training programs which are beyond the scope of this authorization since they are conducted by and for operational combat units. However, some flight-related skills, such as the Air Force navigator/bombadier, electronic warfare and survival course, are included.

(5) *Professional training* includes military education, graduate education, degree completion education and professional development courses not leading to a degree. This training is accomplished at both military and civilian institutions and includes: Senior Service Schools, Staff Colleges, advanced degree programs, Department of Defense schools such as the Defense Systems Management School and professional medical training.

In fiscal 1974, the Department of Defense requested the following training loads:

DOD component	Recruit	Specialize	Professional	Flight	Officer acquisition	Total
Army	48,900	24,300	10,100	1,800	4,100	89,200
Navy	17,000	43,700	8,800	2,100	4,300	75,800
Marine Corps	14,000	10,700	2,300	1,100	0	28,000
Air Force	9,300	28,900	7,800	5,000	4,200	55,100
Army National Guard	16,000	2,800	100	200	0	19,100
Army Reserve	10,800	3,500	600	100	45,000	59,900
Navy Reserve	1,000	4,600	1,600	0	10,200	17,400
Marine Corps Reserve	2,100	1,600	100	0	3,600	6,700
Air National Guard	1,300	2,900	100	400	0	4,600
Air Force Reserve	500	1,600	100	300	22,000	24,300
Total	120,900	124,600	31,600	11,300	92,800	381,200

Discussion

The committee approval of the authorization of training loads as requested is not intended to indicate agreements with the proposed training program. As discussed in the section on active duty manpower authorizations, the committee feels that there is much room for efficiency in the training establishment. However, since the committee is leaving to the discretion of the Secretary of Defense the specific allocation of the total directed reduction of 156,100, the implications on training load will remain unspecified.

Nevertheless, analysis by the committee staff suggests that if the overall manpower reduction were made in a balanced manner, training loads could be reduced by about 30,000. This would constitute an 8 percent reduction in training loads.

TITLE VI—SAFEGUARD ANTIBALLISTIC MISSILE SYSTEM

Section 601 continues the prohibition against initiating or continuing deployment of an antiballistic missile system at any site except Grand Forks Air Force Base, Grand Forks, N. Dak. The language does not limit obligation and expenditure of funds in connection with the Grand Forks ABM site or the dismantling and cancellation of work at other ABM sites.

TITLE VII—GENERAL PROVISIONS

Sec. 701—Continuation of funding authority for the support of free world forces in South Vietnam and Laos

Committee Recommendation for Funding Authority—Reduction of

This section authorizes, for fiscal 1974, amounts "not to exceed $952,000,000" for support of:

"A. Vietnamese and other free world forces in support of Vietnamese forces," and

"B. Local forces in Laos, and for related costs . . ."

As in prior years, this section permits merged funding of Defense Department activities and military assistance activities in the Indochina war zone, that is, in South Vietnam and Laos. Military assistance for Thailand, previously authorized here, has been returned to the regular Military Assistance Program, but Department of Defense funding for assistance to South Vietnam and Laos is still considered necessary as here provided.

The language is again identical with that included in recent appropriation acts for the Department of Defense. The committee recognizes that a part of the language is no longer a reflection of the current situation in Southeast Asia, but has decided not to make any modifications to the existing statutory language.

The section again provides that, except for agreements executed prior to July 1, 1970, free world forces serving in South Vietnam will not be paid, by funds here authorized, certain pays and allowances in excess of those received by U.S. troops.

This section also states that nothing in clause (A) shall be construed to authorize support for Vietnamese or other free world forces acting in support of the governments of Cambodia or Laos. It states that none of the restrictions contained shall be understood to bar support for actions to insure the safe and orderly withdrawal of U.S. troops or to aid in the release of U.S. prisoners of war.

While it does not, in the usual way, authorize specific programs, it should be understood that this provision is the basic authority for Military Assistance Service Funded (MASF) which provides military support for the Vietnamization program.

The appendix includes a tabular summary of assistance extended and proposed.

Background

Commencing with fiscal year 1966, support of Southeast Asia activities was included in the military appropriation accounts of the Department of Defense. Senate Armed Services Committee report No. 992 on Supplementary Military Authorization, 1966, stated in part, "This limited merger of funding of support of allied forces for a combat area with that of U.S. forces engaged in the same objective

is similar to the practice followed during the Korean war. It is desirable because parallel but separate financial and logistics systems for the U.S. forces and for military assistance forces are too cumbersome, time consuming, and inefficient in a combat zone." The result has been that support of Southeast Asia activities has continued to be provided under Military Assistance Service Funded (MASF) in Defense appropriations rather than in the normal military assistance programs.

FY 1974 Request

The President's budget initially requested $2.1 billion in authority which included specific budget justification for programs totaling $1.87 billion. With the establishment of the Cease Fire Agreement on January 27, 1973, revision was required since the President's budget assumed continuation of the SEA conflict. Revisions to the initial request were submitted on June 15 and June 25, 1973. The final request was for $1.6 billion in authority. Included in $1.6 billion was funding in the amount of $1.185 billion for specific programs. Testimony by Defense witnesses stated that the difference between the actual request for funding and the $1.6 billion ceiling on authority was required to provide for obligation of prior year funds and to provide necessary flexibility to meet program fluctuations.

Discussion

The committee has always recognized that military aid to Southeast Asia may at some appropriate time and in more peaceful circumstances be supported through the military assistance program. Careful consideration has been given, and it is the committee's opinion that MASF funding in Defense appropriations for South Vietnam and Laos is warranted in fiscal year 1974. At the present time the problems inherent in changing from MASF to MAP have not been addressed by the Executive Branch. Testimony shows that proper planning, coordination, and transition of programs to MAP will require a minimum of six months to accomplish.

The committee is particularly aware of the complexities involved in current efforts being made to enforce the cease-fire amendment and does not desire to take any action which would further complicate the Southeast Asia situation. With this in mind and in view of the fact that there are no current plans for transition to military assistance program funding, the committee believes that the interests of the United States are best served by continuing MASF funding through fiscal year 1974.

Explanation of Committee Reductions

The committee is recommending a reduction in the authority ceiling and in program funding requested by the Department of Defense. Data provided to the committee showed that as of June 30, 1973, $160–200 million of funds provided for MASF in prior years were estimated to be unobligated. In addition, there is approximately $1.2 billion of prior year funds that had yet to be expended. The committee has carefully examined the estimated funding requirements, the assumptions upon which these requirements were based, and the latest actual data that were available on MASF programs. In summary, the committee has recommended a total reduction of $233.3 million to

programs for which funding was requested in the fiscal year 1974 budget. $41.1 million of the reduction results from review of items requested in the authorization request. An additional $79.7 has been eliminated from the MASF authority since the programs would result in delivery of equipment to United States inventory rather than South Vietnamese or Laotian inventories. Reductions in the amount of $112.7 million are recommended because Defense estimates of materiel requirements appeared excessive in light of previous consumption rates.

The committee is of the opinion that in view of the large amounts of unobligated and unexpended balances and the amount of the fiscal year 1974 recommended program that additional flexibility is not required and is therefore confining the authority ceiling to the program amounts being recommended for approval.

Sec. 702—Continuation of Statutory Restrictions Relating to C–5A

Section 702 is discussed in detail in the section of this report entitled "Aspects of Bill of Special Interest". Statutory language is recommended to continue restrictions enacted last year to insure that funding for the C–5A program would be utilized strictly for that program. The authorization of $37.2 million in this bill to pay for prior years' overruns on the prime airframe contract under a restructured contract would be covered by these restrictions.

COMMITTEE ACTION

In compliance with the Reorganization Act of 1946 as amended by the Reorganization Act of 1970, there is set forth below the Committee vote to report this bill, H.R. 9286, as amended.

In favor: Senators Symington, Jackson, Ervin, Cannon, McIntyre, Byrd of Va., Nunn, Stennis, Thurmond, Tower, Dominick, Goldwater, Saxbe and Scott of Va.

Opposed: Senator Hughes.

Vote: 14 in favor; 1 opposed. Motion adopted.

The other roll call votes on amendments to the bill which were taken up during the course of the mark-up have been made public and are available at the committee.

FISCAL DATA

With respect to 5-year cost projections, under Public Law 91–510, the Legislative Reorganization Act of 1970, certain Senate rules and procedures were revised. Shown below is the legislative language.

SEC. 252 (a) (1) The report accompanying each bill or joint resolution of a public character reported by any committee of the Senate (except the Committee on Appropriations) shall contain—

(A) an estimate, made by such committee, of the costs which would be insured in carrying out such bill or joint resolution in the fiscal year in which it is reported and in each of the five fiscal years following such fiscal year (or for the authorized duration of any program authorized by such bill or joint resolution if less than five years), except that, in the case of measures affecting the revenues, such reports shall require only an estimate of the gain or loss in revenues for a one-year period; and

(B) a comparison of the estimate of costs described in subparagraph (A) made by such committee with any estimate of costs made by any Federal agency; or

(C) in lieu of such estimate or comparison, or both, a statement of the reasons why compliance by the committee with the requirements of subparagraph (A) or (B), or both, is impracticable.

(2) It shall not be in order in the Senate to consider any such bill or joint resolution if such bill or joint resolution was reported in the Senate after the effective date of this subsection and the report of that committee of the Senate which reported such bill or joint resolution does not comply with the provision of paragraph (1) of this subsection.

Below is the letter received in compliance with the legislation. This bill is an annual authorization and does not, within its own terms generate costs beyond fiscal year 1974 even though the funds authorized to be obligated by this act may not be expended for several years in the future. The fiscal year authorizations herein provided are reviewed annually by the committee and the Congress.

THE DEPUTY SECRETARY OF DEFENSE,
Washington, D.C., July 16, 1973.

Hon. JOHN C. STENNIS,
Chairman, Committee on Armed Services,
U.S. Senate.

DEAR MR. CHAIRMAN: In accordance with Section 252(b) of the Legislative Reorganization Act of 1970 Public Law 91–510), indicated below is an estimate of how the $21,959.1 million authorization requested in FY 1974 will be expanded over the FY 1974–1979 period:

Fiscal year:	*(In millions of dollars)*
1974	6, 600. 0
1975	8, 500. 0
1976	3, 600. 0
1977	1, 600. 0
1978	1, 000. 0
1979	659. 1

The extreme uncertainty of future year Defense programs precludes any precise estimates, but I can also provide the general estimate that to support the forces contained in the Annual Defense Report on the FY 1974 Budget, authorizations for procurement and RDT&E in the range of $22–24 billion (in FY 1974 dollars) would be required for each of the next five years.

Sincerely,

BILL CLEMENTS.

DEPARTMENTAL RECOMMENDATION

Following is a letter dated January 29, 1973, from the General Counsel of the Department of Defense forwarding a draft of the proposed legislation to authorize appropriations during fiscal year 1974.

GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE,
Washington, D.C., January 29, 1973.

Hon. SPIRO T. AGNEW,
President of the Senate,
Washington, D.C.

DEAR MR. PRESIDENT: There is forwarded herewith proposed legislation "To authorize appropriations during the fiscal year 1974 for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons, and research, development, test and evaluation for the Armed Forces, and to prescribe the authorized personnel strength for each active duty component and of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes." This proposal is a part of the Department of Defense legislative program for the 93rd Congress, and the Office of Management and Budget has advised that enactment of the proposal would be in accord with the program of the President. This proposal is being sent to the Speaker of the House.

This proposal would provide authorization for appropriations as needed for procurement in each of the categories of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and for other weapons for each of the military departments in an amount equal to the new obligational authority included in the President's budget for fiscal year 1974. In addition, the proposal would provide fund authorization in amounts equal to the new obligational authority included in the President's budget for fiscal year 1974 in total for each of the research, development, test and evaluation appropriations for the military departments and the defense agencies.

Title III of the proposal prescribes the end strength for active duty personnel for each component of the Armed Forces as required by subsection (d)(1) of section 412 of Public Law 86-149, as amended, in the number provided for by new obligational authority in appropriations requested for these components in the President's budget for fiscal year 1974.

Title IV of the proposal provides for the average strengths of the Selected Reserve of each Reserve component of the Armed Forces in the number provided for by the new obligational authority in appropriations requested for these components in the President's budget for fiscal year 1974.

This proposal would also include for fiscal year 1974 language authorizing appropriations of the Department of Defense to be made available for the support of the (1) Vietnamese and other Free World Forces in Vietnam, and (2) local forces in Laos, the terms of which are identical to the most recent congressional actions on Department of Defense Authorization and Appropriation Acts for this purpose.

The reporting requirements of subsection (b) of section 401 of Public Law 89-367, as amended, are considered permanent and would be equally applicable to this provision.

Section 604 of Public Law 92-436, September 26, 1972 imposed certain new requirements on the Department of Defense by amending section 412 of Public Law 86-149 by adding subsection (e) which (1) requires authorization each fiscal year beginning with FY 1974 of the average military training student loads, and (2) requires an annual written report to Congress beginning March 1, 1973, recommending the average student load for each category of training for the next three fiscal years. The data necessary to comply with these requirements is being developed. As soon as this data is available, but no later than March 1, 1973, the required report will be submitted to the Congress together with the necessary provision for inclusion in this proposal to authorize the annual average military training student load.

Applicable statements related to environmental impact are also being provided as required by section 102(2)(c) of Public Law 91–190.

Sincerely,

J. FRED BUZHARDT.

Enclosure.

A BILL To authorize appropriations during the fiscal year 1974 for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons, and research, development, test and evaluation for the Armed Forces, and to prescribe the authorized personnel strength for each active duty component and of the Selected Reserve of each Reserve component of the Armed Forces, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE I—PROCUREMENT

SEC. 101. Funds are hereby authorized to be appropriated during the fiscal year 1974 for the use of the Armed Forces of the United States for procurement of aircraft, missiles, naval vessels, tracked combat vehicles, torpedoes, and other weapons as authorized by law, in amounts as follows:

AIRCRAFT

For aircraft: for the Army, $181,000,000; for the Navy and the Marine Corps, $2,958,300,000; for the Air Force, $2,912,800,000.

MISSILES

For missiles: for the Army, $599,900,000; for the Navy, $680,200,000; for the Marine Corps, $32,300,000; for the Air Force, $1,573,200,000.

NAVAL VESSELS

For naval vessels: for the Navy, $3,901,800,000.

TRACKED COMBAT VEHICLES

For tracked combat vehicles: for the Army, $201,700,000; for the Marine Corps, $46,200,000.

TORPEDOES

For torpedoes and related support equipment: for the Navy, $219,900,000.

OTHER WEAPONS

For other weapons: for the Army, $51,300,000; for the Navy, $41,900,000; for the Marine Corps, $700,000.

TITLE II—RESEARCH, DEVELOPMENT, TEST, AND EVALUATION

SEC. 201. Funds are hereby authorized to be appropriated during the fiscal year 1974 for the use of the Armed Forces of the United States for research, development, test, and evaluation, as authorized by law, in amounts as follows:

For the Army, $2,108,700,000;
For the Navy (including the Marine Corps), $2,711,700,000;
For the Air Force, $3,212,500,000; and
For the Defense Agencies, $525,000,000, of which $24,600,000 is authorized for the activities of the Director of Test and Evaluation, Defense.

TITLE III—ACTIVE FORCES

SEC. 301. For the fiscal year beginning July 1, 1973, and ending June 30, 1974, each component of the Armed Forces is authorized an end strength for active duty personnel as follows:

(1) The Army, 803,806;
(2) The Navy, 566,320;
(3) The Marine Corps, 196–419;
(4) The Air Force, 666, 357.

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except that the ceiling for any armed force shall not include members of the Ready Reserve of such armed force ordered to active duty under the provisions of section 673 of title 10, United States Code, members of the Army National Guard or members of the Air National Guard called into Federal service under section 3500 or 8500, as the case may be, of title 10, United States Code, or members of the militia of any State called into Federal service under chapter 15 of title 10, United States Code. Whenever one or more units of the Ready Reserve are ordered to active duty after the date of enactment of this section, the President shall, on the first day of the second fiscal year quarter immediately following the quarter in which the first unit or units are ordered to active duty and on the first day of each succeeding six-month period thereafter, so long as any such unit is retained on active duty, submit a report to the Congress regarding the necessity for such unit or units being ordered to active duty. The President shall include in each such report a statement of the mission of each such unit ordered to active duty, an evaluation of such unit's performance of that mission, where each such unit is being deployed at the time of the report, and such other information regarding each such unit as the President deems appropriate.

TITLE IV—RESERVE FORCES

SEC. 401. For the fiscal year beginning July 1, 1973, and ending June 30, 1974, the Selected Reserve of each Reserve component of the Armed Forces will be programmed to attain an average strength of not less than the following:

(1) The Army National Guard of the United States, 379,144;
(2) The Army Reserve, 232,591;
(3) The Naval Reserve, 116,981;
(4) The Marine Corps Reserve, 39,735;
(5) The Air National Gaurd of the United States, 92,291;
(6) The Air Force Reserve, 49,773;
(7) The Coast Guard Reserve, 11,300.

SEC. 402. The average strength prescribed by section 401 of this title for the Selected Reserve of any reserve component shall be proportionately reduced by (1) the total authorized strength of units organized to serve as units of the Selected Reserve of such component which are on active duty (other than for training) at any time during the fiscal year, and (2) the total number of individual members not in units organized to serve as units of the Selected Reserve of such component who are on active duty (other than for training or for unsatisfactory participation in training) without their consent at any time during the fiscal year. Whenever such units or such individual members are released from active duty during any fiscal year, the average strength for such fiscal year for the Selected Reserve of such reserve component shall be proportionately increased by the total authorized strength of such units and by the total number of such individual members.

TITLE V—GENERAL PROVISIONS

SEC. 501. Subsection (a)(1) of section 401 of Public Law 89-367 approved March 15, 1966 (80 Stat. 37), as amended, is hereby amended to read as follows:

"(a)(1) Not to exceed $2,100,000,000 of the funds authorized for appropriation for the use of the Armed Forces of the United States under this or any other Act are authorized to be made available for their stated purposes to support: (A) Vietnamese and other free world forces in support of Vietnamese forces, (B) local forces in Laos; and for related costs, during the fiscal year 1974 on such terms and conditions as the Secretary of Defense may determine. None of the funds appropriated to or for the use of the Armed Forces of the United States may be used for the purpose of paying any overseas allowance, per diem allowance, or any other addition to the regular base pay of any person serving with the free world forces in South Vietnam if the amount of such payment would be greater than the amount of special pay authorized to be paid, for an equivalent period of service, to members of the Armed Forces of the United States (under section 310 of title 37, United States Code) serving in Vietnam or in any other hostile fire area, except for continuation of payments of such additions to regular base pay provided in agreements executed prior to July 1, 1970. Nothing in clause (A) of the first sentence of this paragraph shall be construed as authorizing the use of any such funds to support Vietnamese or other free world forces in actions designed to provide military support and assistance to the Government of Cambodia or Laos: *Provided*, That nothing contained in this section shall be construed to prohibit support of actions required to insure the safe and orderly withdrawal or dis-

engagement of U.S. Forces from Southeast Asia, or to aid in the release of Americans held as prisoners of war."

This Act may be cited as the "Department of Defense Appropriation Authorization Act, 1974".

Relationship of Authorization to Department of Defense Appropriations

A short history of Public Law 86-149 ("Section 412") providing the legislative history of those items which require Congressional authorization prior to appropriation is provided in the Appendix of this report.

As the appendix indicates, the so-called "412" legislation which requires authorization as a precedent to the appropriation, was originally enacted in 1959 and has been subsequently expanded in scope as indicated by the various amendments.

Congressional Action on Procurement and R.D.T. & E. Authorization Requests

Fiscal year	Budget request	Senate authorization	House authorization	Conference	Appropriated
1964	$15,358,691,000	$14,951,491,000	$15,856,391,000	$15,314,291,000	$14,364,690,000
1965	17,185,300,000	17,040,140,000	16,914,800,000	16,967,620,000	16,722,391,000
1966	19,363,050,000	15,283,800,000	15,303,400,000	[1] 19,468,250,000	[1] 19,320,550,000
1967	20,769,659,000	17,170,059,000	17,858,059,000	[1] 21,404,459,000	[1] 21,057,559,000
1968	21,066,432,000	20,765,332,000	21,481,032,000	21,168,032,000	20,149,432,000
1969	22,385,052,000	21,341,738,000	21,636,964,000	21,625,750,000	18,491,041,000
1970	21,963,660,000	19,988,886,000	21,347,860,000	20,710,502,000	[2] 19,311,520,000
1971	20,317,430,000	[3] 19,242,889,000	20,237,489,000	[3] 19,929,089,000	[3] 18,997,376,000
1972	[4 5 7] 22,359,129,000	[6] 21,016,417,000	[5] 21,252,682,000	[6] 21,316,870,000	20,461,802,000
1973	[8] 23,272,971,000	20,521,671,000	21,318,788,250	[9] 21,588,747,000	19,567,838,000
1974	[10] 21,959,100,000	20,447,968,000	20,445,255,000		

[1] Includes supplemental.
[2] Of this amount, $350,000,000 to be derived by transfer from stock funds.
[3] Includes $334,000,000 for Safeguard construction and family housing.
[4] Reflects budget amendment submitted subsequent to House Action (+$111,000,000).
[5] Includes $183,600,000 for Safeguard construction and family housing.
[6] Includes $109,570,000 for Safeguard construction and family housing.
[7] Includes $59,762,000 additional requested for civilian pay increases pursuant to Public Law 91-656.
[8] Includes $3,000,000 for special foreign currency program for Navy under R.D.T. & E. appropriation; includes fiscal year 1973 budget amendments of $54,000,000 for civilian personnel pay raise, $254,800,000 for various programs, and June 27, 1972, amendment of $770,000,000 for Southeast Asia and SALT related items.
[9] Includes $644,900,000 additional authorization in sec. 801 of Public Law 92-570.
[10] Includes $2,600,000 for special foreign currency program for Navy under R.D.T. & E. appropriation.

Notes:
During fiscal years 1964 and 1965 tracked combat vehicles were not subject to authorization action.
During fiscal years 1964, 1965, and 1966 the emergency fund under R. & D. was not subject to authorization action.
Authorization for other weapons was not required prior to fiscal year 1971.
Authorization for torpedoes and related support equipment not required prior to fiscal year 1972.

Estimated Amounts (as Amended) Included in the Military Functions Appropriations for Support of Free World Forces in Southeast Asia, Fiscal Year 1974

[In millions of dollars]

Appropriation	Fiscal Year 1972					Fiscal Year 1973				Fiscal Year 1974		
	South Vietnam	Korea	Laos	Thailand	Total	South Vietnam	Korea	Laos	Total	South Vietnam	Laos	Total
Military personnel:												
Army	75.6	80.0	14.8	8.6	179.0	68.8	64.0	19.0	151.8	36.6	10.9	47.5
Navy	.1	.8			.9		.9		.9			
Marine Corps		12.0			12.0							
Total	**75.7**	**92.8**	**14.8**	**8.6**	**191.9**	**68.8**	**64.9**	**19.0**	**152.7**	**36.6**	**10.9**	**47.5**
Operation and maintenance:												
Army	672.7	32.4	57.7	12.3	695.3	679.0	46.1	116.7	735.8	341.2	27.9	299.2
Navy	68.3	.4		1.6	70.3	54.9	.4		55.3	41.5		41.5
Marine Corps	1.1	2.1		.2	3.4	.9			.9			
Air Force	113.7	.8	29.3	9.2	153.0	330.0	.6	77.0	407.6	230.1	36.8	266.9
Total	**755.8**	**55.7**	**87.0**	**23.8**	**922.3**	**958.8**	**47.1**	**193.7**	**1,199.6**	**615.9**	**74.7**	**690.6**
Procurement:												
Army:												
Aircraft	.3				.3							
Missile						4.3			4.3			
W. & T.C.V	.4				.4	4.6	.1	.1	4.8	1.8	.2	2.0
Ammunition	1,047.9	17.5	61.1	.2	1,126.7	724.7	11.7	83.2	819.6			
Other	50.0	.7	6.6	4.0	61.3	25.9		1.2	27.1	4.0	.5	4.5
Navy: Other	10.2			.3	10.5	13.7			13.7	7.5		7.5
Marine Corps	1.5	1.2		1.4	4.1	.6			.6			
Air Force:												
Aircraft	98.3		8.5	4.7	111.5	265.9		11.0	276.9	192.5	7.2	199.7
Other	119.4		35.3	.4	155.1	190.4		45.3	235.7			
Total	**1,328.0**	**19.4**	**111.5**	**11.0**	**1,469.9**	**1,230.1**	**11.8**	**140.8**	**1,382.7**	**205.8**	**7.9**	**213.7**
Summary:												
Army	1,746.9	150.6	140.2	25.6	2,063.3	1,401.3	121.9	220.2	1,743.4	386.7	49.5	436.2
Navy	78.6	1.2		1.9	81.7	68.6	1.3		69.9	49.0		49.0
Marine Corps	2.6	15.3		1.6	19.5	1.5			1.5			
Air Force	331.4	.8	73.1	14.3	419.6	786.3	.6	133.3	920.2	422.6	44.0	466.6
Total	**2,159.5**	**167.9**	**213.3**	**43.4**	**2,584.1**	**2,257.7**	**123.8**	**353.5**	**2,735.0**	**858.3**	**93.5**	**951.8**

Relationship of Authorization to Department of Defense Appropriations

History of Public Law 86–149 ("Section 412")

The jurisdiction of the committee so far as specific authorizations are concerned was increased significantly in 1959 by the enactment of section 412(b) of Public Law 86–149 which required congressional authorization of appropriations for the procurement of aircraft, missiles, and naval vessels. This law has been amended and expanded as follows:

In 1962 (Public Law 87–436) to require similar authorization of appropriations for research, development, test, or evaluation associated with aircraft, missiles, and naval vessels;

In 1963 (Public Law 88–174) to require authorization of appropriations for all research, development, test, or evaluation carried on by the Department of Defense;

In 1965 (Public Law 89–37) to require authorization of appropriations for the procurement of tracked combat vehicles.

In 1967 (Public Law 90–168) to require annual authorization of the personnel strengths of each of the Selected Reserves of the Reserve components as a prior condition for the appropriation of funds for the pay and allowances for the Reserve components.

In 1969 (Public Law 91–121) to require authorization of appropriations for the procurement of other weapons to or for the use of any armed force of the United States. (Essentially, heavy, medium, and light artillery, antiaircraft artillery, rifles, machineguns, mortars, small arms weapons, and any crew-fired piece using fixed ammunition); and

In 1970 (Public Law 91–441) to require authorization of appropriations to or for the use of the Navy for the procurement of torpedoes and related support equipment; and to require authorization of the average annual active duty personnel strength for each component of the Armed Forces as a condition precedent to the appropriation of funds for this purpose; and

In 1972 (Public Law 92–436) to require annual authorization for the average military training student loads for each component of the Armed Forces, and modified the provisions relating to authorization for active duty personnel strength.

The law today, therefore, reads as follows:

> Sec. 412. (a) The Secretary of Defense shall, on or before January 31, 1960, submit to the President of the Senate and the Speaker of the House of Representatives complete and detailed information with respect to the various types and kinds of aircraft, missiles, and naval vessels being procured by the armed forces of the United States, including the number of each type and kind procured and the cost thereof and the number of each type and the kind proposed to be procured and the estimated cost thereof.

(b) No funds may be appropriated after December 31, 1960, to or for the use of any armed force of the United States for the procurement of aircraft, missiles, or naval vessels, or after December 31, 1962, to or for the use of any armed force of the United States for the research, development, test, or evaluation of aircraft, missiles, or naval vessels, or after December 31, 1963, to or for the use of any armed force of the United States for any research, development, test, or evaluation, or after December 31, 1965, to or for the use of any armed force of the United States for the procurement of tracked combat vehicles, or after December 31, 1969, to or for the use of any armed force of the United States for the procurement of other weapons, or after December 31, 1970, to or for the use of the Navy for the procurement of torpedoes and related support equipment unless the appropriation for such funds has been authorized by legislation enacted after such dates.

(c) Beginning with the fiscal year which begins July 1, 1968, and for each fiscal year thereafter, the Congress shall authorize the personnel strength of the Selected Reserve of each Reserve component of the Armed Forces; and no funds may be appropriated for any fiscal year beginning on or after such date for the pay and allowances of members of any Reserve component of the Armed Forces unless the personnel strength of the Selected Reserve of such Reserve component for such fiscal year has been authorized by law.

(d)(1) Beginning with the fiscal year which begins July 1, 1972, and for each fiscal year thereafter, the Congress shall authorize the end strength as of the end of each fiscal year for active duty personnel for each component of the Armed Forces; and no funds may be appropriated for any fiscal year beginning on or after such date to or for the use of the active duty personnel of any component of the Armed Forces unless the end strength for active duty personnel of such component for such fiscal year has been authorized by law.

(2) Beginning with the fiscal year ending June 30, 1972, the Secretary of Defense shall submit to the Congress a written report not later than January 31 of each fiscal year recommending the annual active duty end strength level for each component of the Armed Forces for the next fiscal year and shall include in such report justification for the strength levels recommended and an explanation of the relationship between the personnel strength levels recommended for such fiscal year and the national security policies of the United States in effect at the time. Such justification and explanation shall specify in detail for all forces, including each land force division, carrier and other major combatant vessel, air wing, and other comparable unit: (A) the unit mission and capability, (B) the strategy which the unit supports, and (C) the area of deployment and illustrative areas of potential deployment, including a description of any United States commitment to defend such areas. Such justification and explanation shall also include a detailed discussion of the manpower required for support and overhead functions within the Armed Services.

Although not specifically amending section 412(b), section 305 of Public Law 89–37, dated June 11, 1965, did provide a prohibition against the appropriation of funds for Emergency Fund, Defense. This requirement is met in the so-called "412" authorization each year. Section 305 reads as follows:

> SEC. 305. No funds may be appropriated after June 30, 1966, to or for the use of any armed force of the United States for use as an emergency fund for research, development, test, and evaluation, or procurement or production related thereto unless the appropriation of such funds has been authorized by legislation enacted after that date.

CHANGES IN EXISTING LAW

In compliance with paragraph 4 of rule XXIX of the Standing Rules of the Senate, changes in existing law proposed to be made by the bill are shown as follows: Existing law to be omitted is enclosed in black brackets, new matter is printed in italic, and existing law in which no change is proposed is shown in roman.

TITLE III—ACTIVE FORCES

UNITED STATES CODE, TITLE 10—ARMED FORCES

Subtitle A—General Military Law

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PART II.—PERSONNEL

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Chapter 39.—ACTIVE DUTY

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§ 673. Ready Reserve

(a) In time of national emergency declared by the President after January 1, 1953, or when otherwise authorized by law, an authority designated by the Secretary concerned may, without the consent of the persons concerned, order any unit, and any member not assigned to a unit organized to serve as a unit, in the Ready Reserve under the jurisdiction of that Secretary to active duty (other than for training) for not more than 24 consecutive months.

(b) To achieve fair treatment as between members in the Ready Reserve who are being considered for recall to duty without their consent, consideration shall be given to—

(1) the length and nature of previous service, to assure such sharing of exposure to hazards as the national security and military requirements will reasonably allow;

(2) family responsibilities; and

(3) employment necessary to maintain the national health, safety, or interest.

The Secretary of Defense shall prescribe such policies and procedures as he considers necessary to carry out this subsection. He shall report on those policies and procedures at least once a year to the Committees on Armed Services of the Senate and the House of Representatives.

(c) Not more than 1,000,000 members of the Ready Reserve may be on active duty (other than for training), without their consent, under this section at any one time.

(d) Whenever one or more units of the Ready Reserve are ordered to active duty, the President shall, on the first day of the second fiscal year

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quarter immediately following the quarter in which the first unit or units are ordered to active duty and on the first day of each succeeding six-month period thereafter, so long as such unit is retained on active duty, submit a report to the Congress regarding the necessity for such unit or units being ordered to and retained on active duty. The President shall include in each such report a statement of the mission of each such unit ordered to active duty, an evaluation of such unit's performance of that mission, where each such unit is being deployed at the time of the report, and such other information regarding each unit as the President deems appropriate.

SECTION 412(d) OF PUBLIC LAW 86–149 (73 STAT. 322)

SEC. 412. [(d) (1) Beginning with the fiscal year which begins July 1, 1972, and for each fiscal year thereafter, the Congress shall authorize the end strength as of the end of each fiscal year for active duty personnel for each component of the Armed Forces; and no funds may be appropriated for any fiscal year beginning on or after such date to or for the use of the active duty personnel of any component of the Armed Forces unless the end strength for active duty personnel of such component for such fiscal year has been authorized by law.

"(2) Beginning with the fiscal year ending June 30, 1972, the Secretary of Defense shall submit to the Congress a written report not later than January 31 of each fiscal year recommending the annual active duty end strength level for each component of the Armed Forces for the next fiscal year and shall include in such report justification for the strength levels recommended and an explanation of the relationship between the personnel strength levels recommended for such fiscal year and the national security policies of the United States in effect at the time. Such justification and explanation shall specify in detail for all forces, including each land force division, carrier and other major combatant vessel, air wing, and other comparable unit: (A) the unit mission and capability, (B) the strategy which the unit supports, and (C) the area of deployment and illustrative areas of potential deployment, including a description of any United States commitment to defend such areas. Such justification and explanation shall also include a detailed discussion of the manpower required for support and overhead functions within the Armed Services.]

(d) (1) Beginning with the fiscal year which begins July 1, 1972, and for each fiscal year thereafter, the Congress shall authorize the end strength as of the end of each fiscal year for active duty personnel for each component of the Armed Forces, and beginning with the fiscal year which begins July 1, 1974, and for each fiscal year thereafter, the Congress shall authorize the end strength as of the end of each fiscal year for civilian employees for each component of the Department of Defense; and no funds may be appropriated for any fiscal year beginning on or after such applicable dates, to or for the use of the active duty personnel of any component of the Armed Forces or to or for the use of civilian employees of the Department of Defense, unless the end strength for active duty personnel of such component for such fiscal year and the end strength for civilian employees of the Department of Defense for such fiscal year have been authorized by law, respectively.

(2) Beginning with the fiscal year ending June 30, 1972, with respect to the active duty strength levels, and beginning with the fiscal year ending June 30, 1974, with respect to civilian employee strength levels, the Secretary of Defense shall submit to the Congress a written report not

later than February 15 of each fiscal year recommending the annual active duty end strength level for each component of the Armed Forces for the next fiscal year and the annual civilian employee end strength level for the Department of Defense for the next fiscal year, and shall include in such report justification for the strength levels recommended and an explanation of the relationship between the personnel strength levels recommended for such fiscal year and the national security policies of the United States in effect at the time. Such justification and explanation shall specify in detail for all military forces, including each land force division, carrier and other major combatant vessel, air wing, and other comparable unit: (A) the unit mission and capability, (B) the strategy which the unit supports, and (C) the area of deployment and illustrative areas of potential deployment, including a description of any United States commitment to defend such areas. Such justification and explanation shall also include a detailed discussion of (i) the manpower required for support and overhead functions within the Department of Defense, (ii) the relationship of the manpower required for support and overhead functions to the primary combat missions and support policies, and (iii) the manpower required to be stationed or assigned to duty in foreign countries and aboard vessels located outside the territorial limits of the United States, its territories, and possessions.

TITLE V—MILITARY TRAINING STUDENT LOADS

SECTION 412(e) OF PUBLIC LAW 86-149

[SEC. 412. (e)(1) Beginning with the fiscal year which begins July 1, 1973, and for each fiscal year thereafter, the Congress shall authorize the average military training student loads for each component of the Armed Forces. Such authorization shall not be required for unit or crew training student loads, but shall be required for student loads for the following individual training categories: recruit and specialized training; flight training; professional training in military and civilian institutions; and officer acquisition training; and no funds may be appropriated for any fiscal year beginning on or after such date for the use of training any military personnel in the aforementioned categories of any component of the Armed Forces unless the average student load of such component for such fiscal year has been authorized by law.

(2) Beginning with the fiscal year ending June 30, 1973, the Secretary of Defense shall submit to the Congress a written report not later than March 1 of each fiscal year recommending the average student load for each category of training for each component of the Armed Forces for the next three fiscal years and shall include in such report justification for and explanation of the average student loads recommended.]

TITLE VII—GENERAL PROVISIONS

SECTION 401(a)(1) OF PUBLIC LAW 89-367 (80 STAT. 37)

SEC. 401. (a)(1) Not to exceed [$2,500,000,000] *$952,000,000* of the funds authorized for appropriation for the use of the Armed Forces of the United States under this or any other Act are authorized to be made available for their stated purposes to support: (A) Vietnamese

and other free world forces in support of Vietnamese forces, (B) local forces in Laos; and for related costs, during the fiscal year [1973] *1974* on such terms and conditions as the Secretary of Defense may determine. None of the funds appropriated to or for the use of the Armed Forces of the United States may be used for the purpose of paying any overseas allowance, per diem allowance, or any other addition to the regular base pay of any person serving with the free world forces in South Vietnam if the amount of such payment would be greater than the amount of special pay authorized to be paid, for an equivalent period of service, to members of the Armed Forces of the United States (under section 310 of title 37, United States Code) serving in Vietnam or in any other hostile fire area, except for continuation of payments for such additions to regular base pay provided in agreements executed prior to July 1, 1970. Nothing in clause (A) of the first sentence of this paragraph shall be construed as authorizing the use of any such funds to support Vietnamese or other free world forces in actions designed to provide military support and assistance to the Government of Cambodia or Laos: *Provided*, That nothing contained in this section shall be construed to prohibit support of actions required to insure the safe and orderly withdrawal or disengagement of United States forces from Southeast Asia, or to aid in the release of Americans held as prisoners of war.

SEPARATE VIEWS OF SENATORS McINTYRE, SYMINGTON, CANNON, BYRD, JR., OF VIRGINIA, HUGHES, DOMINICK, AND SAXBE

Nearly half the committee opposes an acceleration of the Trident program and prefers a more orderly development of the system that would spread the costs, avoid the waste and errors of excessive concurrency, provide the most secure and rapid counter to any ASW threat, and still give us a strong bargaining position at SALT II.

1. SPREADING THE COSTS

The Trident system is the most expensive weapons system yet proposed to the Congress. DOD estimates that the ultimate cost will be about $13 billion to develop the Trident I missile and to develop and produce ten operational Trident submarines. The accelerated program would concentrate this massive cost on the tawpayer within the next few years. This year's bill calls for over $1.5 billion for this system alone; next year, $2.5 billion; the next year another $2.5 billion; and so on.

A more orderly pace, preferred by nearly half of the committee, would reduce the $1.5274 billion requested in this bill by $885.4 million and would reduce next year's cost by another billion dollars. (See Table I.)

This alternative program is similar to DOD's original proposal outlined in 1971 which was the honed and tempered product of years of review and careful, systematic analysis by DOD's planners. (See Table II.) It would permit a construction of two boats per year instead of three per year requested by DOD's accelerated program.

This more orderly alternative would authorize $642 million for FY 1974 and would leave virtually intact this year's request for R&D funds for both the Trident I missile and the Trident submarine. The active development and construction of the lead-submarine would continue uninterrupted, would be complete by 1980, a date earlier by several years than DOD's original 1971 projection, and would be supported by sufficient remaining funds from last year's advance procurement monies.

2. AVOIDING THE WASTE AND ERRORS OF CONCURRENCY

However attractive the short run reductions might be, even more important are the long run savings resulting from an orderly development program, because this is the surest and least wasteful way of developing such a complex system. Surely we have learned through the sad experience of recent years the dangers of proceeding concurrently with R&D and production as DOD proposes in this case and have learned the importance of proving a system out thoroughly with a prototype before further construction of boats. One hard lesson of the last few years is that acceleration is no guarantee of meeting a required operational date and no certain path to a reliable weapons system.

The accelerated building program proposed by DOD would begin the construction of all ten proposed Trident submarines in the next four years. There is no surer way of inviting errors and adding excessive costs to the program than concurrently developing and producing the Trident submarines at such a hectic pace. The likelihood of waste and errors due to such concurrency is made even greater by the difficulty of designing and building submarines to counter an ASW threat which cannot yet even be described by Navy's most knowledgeable experts.

The alternative plan preferred by nearly half of the committee is a more orderly and efficient way to develop a reliable Trident system. This program would minimize waste and errors due to excessive concurrency; because it would complete the lead boat in 1980 instead of 1978, begin construction of the follow-on boats in FY 1975 at the rate of two per year instead of three, and thereby provide enough time for for design and developmental adjustments to be incorporated into the follow-on boats.

3. COUNTERING ANY THREAT

There was thorough and searching inquiry by the committee and its R&D Subcommittee into any present or projected threat to our sea-based missile fleet. DOD's most sophisticated analysts agreed that our sea-based deterrent is secure from any conceivable threat. They agreed that our own understanding of ASW (anti-submarine warfare) technology is far beyond that of the Soviets. Indeed, any Soviet threat was so remote, witnesses could only speculate about any future breakthrough.

The most authoritative DOD witnesses testified that our present Polaris/Poseidon force—even with no further improvement—is secure at least until 1980.

Of course, we are presently going a step beyond this considerable margin of safety because the Poseidon missile, as it is currently being converted, has a long-strike range which (according to Doctor Stephen Lukasik, DOD's most authoritative expert on advanced ASW technology), "will increase our SSBN patrol area sufficiently to pose immense additional problems for any ASW sensor that can now be conceived." This conversion from Polaris to Poseidon, which will continue through 1977, has been costing us over 700 million dollars a year for the last three years and this bill authorizes over 360 million dollars for that purpose this year.

If some unanticipated Soviet ASW breakthrough occurs (despite all the expert testimony to the contrary), our quickest and most secure counter would be to backfit the Trident I missile into the Poseidon boat. By concentrating our resources on the development of the Trident I missile, we could have it available for such a backfit by 1978. Since this missile has a range of 4,000 miles its deployment would quadruple the ocean area which the Soviets would have to patrol and attack, would pose a problem for their ASW beyond even speculation by DOD witnesses, and would permit us to base our fleet at home.

In 1971 and 1972, DOD recognized the importance of the backfit alternative in their presentation, but this year their deemphasis of this most rapid and reliable response to a Soviet ASW breakthrough contradicts their own military justification of the accelerated program and is a disturbing departure from the prudence of their original position.

Beyond the backfit, a more deliberate development of Trident will insure that we will have a sea-based deterrent that will prove both reliable and invulnerable when it is deployed. This will insure that we design a system that will, in fact, counter an as yet unknown Soviet ASW threat. Current difficulties in testing new Poseidon missiles underline the overriding importance of a thorough development and testing program for a system so complex and so critical to our national security.

4. BARGAINING FROM STRENGTH

A more orderly development of Trident enhances our bargaining position at SALT. The Soviets must be more concerned about a reliable and more thoroughly proven Trident that will result from our careful development of the system than they will be by the folly of massive monies spent helter skelter. The more deliberate pace also provides us greater flexibility at SALT in defining the terms of an agreement on sea-based offensive systems, because we would be locked into the design and construction of fewer boats than the accelerated program requires.

This alternative ensures that we will bargain from strength at SALT II. The $642 million spent in FY 1974 includes the largest amount for a single weapons system in this year's R&D request and, therefore, must be convincing evidence to the Soviets of our seriousness about Trident and our national commitment to preserve the invulnerability of our sea-based deterrent. They must recognize that this amount would permit work to continue on the lead Trident submarine, would provide advance procurement of long-lead components on the three follow-on submarines, and would enable us to deploy Trident I missiles in POLARIS boats by 1978.

This is an imposing, dynamic Trident program and it—plus our continued development of B–I, plus continued modernization and improvement of our Minutemen, plus our active retention of the option of MIRVing additional Minutemen, plus our R&D of Mobile ICBM's, plus our R&D of site defense, plus our continued MIRV conversion of our submarine fleet—will insure that our military position at SALT II will be a powerful incentive for the Soviets to come to a serious and secure agreement.

In sum, a more orderly development of Trident enhances our prospects for a secure agreement at SALT II. And if we fail at SALT, it insures that we will have a reliable successor to Poseidon and that our sea-based deterrent will be secure the rest of this Century.

TABLE I.—COST COMPARISON

[In millions of dollars]

	Fiscal year 1973 accelerated program	Fiscal year 1974		
		Request for accelerated program	Decelerated program	Reduction
R. D. T. & E.:				
Trident I missile	348.4	529.0	498.0	−31.0
Trident submarine	122.0	125.6	104.0	−21.6
Trident II missile				
Total R. D. T. & E.	470.4	654.6	602.0	−52.6
Procurement:				
Ship construction (SCN)	311.0	867.8	40.0	−827.8
Weapons procurement (WPN)		5.0		−5.0
Total procurement	311.0	872.8	40.0	−832.8
Total authorization request	781.4	1,572.4	642.0	−885.4

TABLE II.—PROGRAM COMPARISON

	DOD 1971 plan	DOD accelerated program	Decelerated program
Operational date for lead boat	(1)	1978	1980
Production rate per year for follow on boats	(2)	3	2
Operational date for Trident I missile	1977–79	1978	1978
Operational date for Trident II missile	(2)	(3)	(3)
Backfit of Trident I missile in Poseidon boat	1977–79	(4)	1978

[1] Early 1980's.
[2] Not determined.
[3] To be determined.
[4] Classified.

INDIVIDUAL VIEWS OF SENATOR HARRY F. BYRD, JR.

While I support the action taken by the Armed Services Committee in approving defense authorizations for FY 1974, there are several factors which cause me concern.

I have always supported a strong defense—and I feel the American taxpayers support a strong defense. But, when we in the Congress are spending these tax dollars—and this year we are talking about total defense outlays of $79 billion—it is vitally important that the American people know exactly what they are getting for their money.

Through the last two decades, we have spent more and more on defense. In fiscal year 1954 the defense outlays were $43.6 billion and in fiscal year 1974 they will be $79 billion. This is an increase of $35.4 billion in 20 years. Of this $35.4 billion increase, $32.9 billion or 93 percent has gone for pay and operating costs and only $2.5 billion, or 7 percent went for the combined total of procurement, research and development, and military construction.

The rise in the defense budget in the last 20 years has been due to the increase in personnel costs and not in weapons systems as is commonly thought.

With two of every three defense dollars going for manpower and manpower-related costs, it is important that the Department of Defense realize that defense manpower is an expensive resource and should be managed accordingly.

There is a need for careful control over the numbers and utilization of personnel required to provide the United States with adequate defense.

There is every indication that manpower costs will continue to increase in proportion to the overall defense budget from the experiences to date with the all volunteer concept. The Department of Defense has already indicated that the budget for fiscal year 1975 may increase as much as $4 billion to $83 billion.

From the beginning, I have questioned the wisdom of the all professional force; both in terms of cost and the quality of the force that results. It is important to watch closely the all-volunteer experiment to see if it is working. The Army, for example, has failed for 6 consecutive months to reach its recruiting goals. From January through June, 1973, the Army failed by 18 percent to reach its goals, and in July, traditionally a top recruiting month, the Army failed by 24 percent to reach its goal.

The July figures are revealing also as to the quality of the force recruited—31% of new recruits were in what the Army classifies as low intelligence brackets. These people are recruited even though the Army itself maintains that low-intelligence recruits are a major disciplinary problem. I had hoped that with the increases in basic pay for the military, the quality of the force would increase and yet the facts support the opposite conclusion. The requirement

that 70% of all recruits be high school graduates has already been dropped by the Army and now it may be necessary to lower the physical standards to meet recruitment requirements. Is this the only way to recruit the all volunteer force? Can we rely on such a force in time of national emergency?

The Army did meet the June quota for 3,500 enlistees in the combat arms—but only by paying 3,300 of them bonuses of $2,500.

Federal expenditures must be brought under control and we have to get the most for every tax dollar we spend. If we are spending tax dollars for defense, we should get the best defense possible for our money.

Frankly, I doubt the wisdom of the all volunteer force, and my concern is only increased by the fact that we are spending so large a percentage of the defense budget for personnel and operating costs.

Individual Views of Senator John Tower on Defense Manpower

The committee, in recommending manpower reductions, rightfully left the prerogative of where and how those reductions are to be made to the Secretary of Defense. There are in these reductions, however, some pitfalls I believe my colleagues should be aware of that would cause reductions in categories of forces the committee did not and I believe would not consider as viable candidates.

The committee did review overseas manpower as part of its overall review and, with the exception of SHAPE, EUCOM, and PACOM headquarters, did not recommend specific numerical reductions. However, the committee did feel that a 7 percent reduction of manpower in the mission categories could be made across the board, which, in my opinion, requires the reduction of overseas forces if the 7 percent reduction is to be distributed equitably. However, I do not believe a reduction would work out that way.

As regards any reduction of U.S. forces in Europe, the Administration has on numerous occasions stated the importance of maintaining the present level of forces as we enter the MBFR talks this fall. Consequently, it is very unlikely the Department of Defense will be able to make any significant reduction of manpower in Europe.

Regarding our forces in Korea and Thailand, they are there in support of U.S. national commitments and, consequently, cannot be arbitrarily withdrawn. Rather, as was the case in the recently announced U.S. withdrawal of Air Force personnel from Thailand, any withdrawals are necessarily preceded by consultation and, quite possibly, by negotiation with the host government. Again, it is unlikely the Department of Defense would be able to reduce manpower in those areas.

For the above reasons and because the prerogative of reducing U.S. forces serving overseas does not rest exclusively with the Secretary of Defense, the Department of Defense would have to look elsewhere to accommodate the overseas portion of the recommended reduction.

That would require the Army and the Air Force to reduce U.S. based forces in order to make up what the committee illustrated could be reduced from overseas. This, in turn, will result in an unreasonable and unwise reduction totally different from that intended by the committee. Even the committee could not give illustrative reductions of that magnitude for the U.S. based forces.

There are other consequences these recommended reductions will have on the Services. Whereas the committee suggests the reductions can be made almost exclusively from support forces, the Services disagree. For example, Army states it could not make such a sizeable reduction from support forces alone and the real impact would be the inactivation of one to two divisions. Navy advises it would be necessary to inactivate over 50 ships and the Marine Corps would have to reduce combat forces in order to meet the reduction quota suggested

by the committee. Air Force states it would have to consider inactivation of six strategic bomber squadrons and up to twenty tactical squadrons in order to make a suggested 6 percent manpower space reduction. Again, it would not be possible to make such a large reduction from support forces alone.

I do not feel that the potential impact of the illustrated reductions on each of the Services has been explored fully by the committee. Certainly each of the Services can make some reductions in the support area, but the strong protests of each of the Services indicating combat muscle will have to be cut in order to make the committee's recommended reduction leads me to conclude the total amount may be ill advised.

In the future I think the committee needs to have a number of manpower reduction bogies in mind as it conducts its manpower authorization hearings. These potential reductions can then be fully discussed and explored with the Defense witnesses and the true impact of these reductions can be examined.

While the committee suggests the recommended reductions can be made almost exclusively from the support area I do not believe that to be the case. It is my opinion that these reductions, if implemented, would have a far more serious impact on the mission capability of the Services than visualized by the committee.

INDIVIDUAL VIEWS OF SENATOR HUGHES

Like every other member of this committee and of the Senate, I want a strong defense capability for the United States that will protect our country and its legitimate national interests against all potential enemies. Even in the present climate of detente, I have no illusions about the threats to our security that would materialize if our military capability were to become weak and obsolescent. Harsh treatment of Jews and other minorities in the Soviet Union and persecution of leading scientists and poets serve to remind us that there has been no notable change of heart in the Kremlin since the brutal repressions of Hungary and Czechoslovakia. If the dove of peace is fluttering over Moscow and Peking and other totalitarian capitals, it has found at best a precarious haven. With these realities clearly in mind, I voted against reporting this particular bill to the Senate floor because I believe it is the wrong bill at the wrong time with the wrong priorities for meeting our true national security needs.

It is axiomatic that the strength of a nation to defend itself is not measured by military manpower and weapon systems alone. Nor are foreign powers the only enemies or potential enemies that threaten our national security. Corruption, discrimination, poverty, injustice and deteriorating public health can significantly impair our national morale and our ability to defend ourselves. These facts need to be borne in mind when we cut back critically needed funds for manpower and public health while voting ever more massive outlays for military purposes.

At the present time, the pernicious, continuing inflation is in itself no small threat to our national security. And inflated, unnecessary defense spending, of which there is a substantial amount in this bill, is the prime cause of the treadmill of ever-rising prices. If a new weapon system is proven necessary, the inflationary impact must be taken in stride. But defense expenditures are especially important to assess carefully, because military spending is fundamentally non-productive in that it does not provide goods that consumers can buy. In fact, some economists contend that defense spending hurts our economy, in the long run. Yale Professor Bruce Russett, who has studied defense spending and the economy over the past thirty years, has concluded: "An extra dollar for defense in any one year has, on the average, reduced investment by 29 cents and the level of output in the economy has been permanently diminished by the order of six or seven cents per year" for each defense dollar. If invested, he points out, that dollar would have produced 25 percent more in additional production, in perpetuity.

Whatever the effects and side effects of massive military spending may be, the ultimate criterion, of course, is whether or not the outlay is necessary and wise. But these authorizations and appropriations should be given at least as close a scrutiny as that we give the items in

our domestic budget. Moreover, it is tunnel vision to assume that voting for military outlays while denying urgently needed domestic needs is necessarily strengthening our defense posture. We need to see our defense needs in a broader context, and in that broader context I am convinced the bill we are reporting out fails on a number of counts.

Traditionally, defense authorizations have been a sort of numbers game conducted by the Pentagon. Congressional committees have gone along, hypnotized, adding one after another costly tree without ever seeing the shape of the forest or the direction in which it is moving.

Last year, our committee chairman sounded what I considered a most constructive theme when he said that, given the huge budget deficits which the government has been incurring, "we must weigh these programs this time as we have never weighed them before."

Senator Stennis warned: "If we are again asked to buy overly complex weapons; if we are asked to fund purchases which involve gross concurrency; we may have to step in forthrightly and delay some programs until we can get the R&D bugs worked out."

These words summarize better than anything I can say my principal objections to the bill we are sending to the Senate floor.

This is the season, with military authorizations under consideration, that the Pentagon's heavy perennial propaganda about the Soviet build-up rolls around. We get to the point where military might is regarded as a priority in its own right, above all other priorities. It becomes a case of the tail wagging the dog. We want a strong and equitable society, a healthy economy that will provide decently for all of our citizens, the preservation of our individual liberties and economic security, and a system of justice fair to all. The purpose of the military is to protect these national priorities, not to substitute for them as a goal in itself.

I believe we misread current public opinion if we assume that the people will passively accept unlimited military spending today as they have in years past. Trends in public opinion over the past four decades point to a citizen revolt against dedicating so great a proportion of our economic resources to defense and defense-related expenditures.

The government refutes critics of it defense spending with the claim that we are actually spending more now on "human resources" than on the military. The statisticians, however, devised in 1969 an inflated "human resources" figure: Veterans benefits, which are war-related, were added to the human resources account; interest on the national debt, most of which was war-incurred, was not considered as military spending in any degree; the national trust funds for such purposes as highways and social security, over which neither the President nor Congress has annual control, were included in the domestic budget, artificially inflating the discretionary budget total and thereby automatically reducing the military share of the whole budget. On this basis, they arrive at figures of 32 percent of our federal budget for military and related programs and 45 percent for human resources. Without the adjustments I have mentioned, the figures read 60 percent for military purposes and less than 20 percent for human resources.

Of course, as I have stated earlier, the criterion that counts is not what percentage of our budget we spend for defense, but whether these billions are necessary for our national security. On this point too, public opinion has become more critical.

It is no longer accepted without question that the largest armies, the costliest weapon systems, the biggest stockpiles of missiles are necessary for our security. There is even growing public doubt as to whether the largest, most expensive military establishment is necessarily the most efficient, and whether more money for weapon systems automatically assures more security.

Under the burden of vast military outlays, our own economy is in serious trouble. In the meantime, our vanquished adversaries of World War II, Japan and West Germany, unencumbered for years by big military spending, have been enjoying an era of unprecedented prosperity.

Congress and the President have agreed on an overall budget limitation. The question is one of priorities—where we will spend our admittedly finite resources. Realistically, does the present world situation justify continuing to devote so much of our resources to military spending?

As of mid-1973, the United States was estimated to have nearly twice the number of offensive weapons (nuclear forceloadings) as the Soviet Union. We now have 7,100 warheads on missiles or bombers, compared to 3,600 for the Soviet Union. If only half of these warheads reached targets such as the 219 Soviet cities with more than 100,000 population, we could destroy these places sixteen times over. As a result of our MIRV multiple warhead program, the United States has added 3,100 warheads to its arsenal in the past three years while the Soviet Union has added only 1,800.

There are important qualitative differences between the two forces, to be sure, but it is clear that the United States has continued nuclear expansion at a rapid rate. For another example, the Atomic Energy Commission, according to Secretary Schlesinger, was last year producing nuclear weapons at seven times the rate they were producing them at the start of the Nixon administration.

As the Pentagon tunes up its propaganda that the Soviets are outstripping us and we must spend billions more, it is time to ask some searching questions. Every billion we overspend for military purposes starves our long-neglected domestic needs. Is it really in our national interest—and are we realistically enhancing our national security—to be first in weapons and only eighth in doctor-patient ratio, only 14th in literacy, 14th in infant mortality, and only 25th in life expectancy? Must we spend so much on the instruments of death that we can't afford the necessities of life? It simply doesn't make sense. We can deter any attack and still protect the health and well-being of our people.

Our lagging economy cannot afford the luxury of wasting $5 billion on a single, unnecessary ABM site or $19 billion in cost overruns for major weapons systems. These mistakes of the past cannot be repeated.

Nor can we continue allowing international commitments to take precedence routinely over our commitments to our own citizens—for better health care, education, housing, jobs, income security for the elderly. In the broader concept of national security, it should be seen that every tax dollar spent unnecessarily on the military is compounded waste. At the same time that the government is buying something it doesn't need, it is robbing some area of genuine human need.

Considering the rising costs for modern weaponry and manpower, our defense costs will be great regardless of how prudent we are. My plea is to spend wisely, not just to spend more. We should cover all areas of need, but with a system that is flexible, that provides viable options for the future. We cannot afford to cement ourselves into multi-billion dollar systems that may be as outdated as the Maginot Line before they are ever completed.

This year especially, with the end to American involvement in hostilities in Southeast Asia and with renewed promises of a permanent strategic arms limitation agreement within the next year, we have the opportunity to take a long-range view of our national security needs.

Too often, we have taken the easy path of granting each year's budget requests without adequate attention to the future consequences.

If the momentum of the arms race and cost overruns is to be halted, we need to take a detailed look at each major program and at how the total mix of programs fits with our overall defense and domestic needs. Particularly in research and development programs, we should move cautiously rather than rushing headlong into new and extremely costly systems. Even minor mistakes at this initial stage can balloon into costly white elephants in the years ahead.

The advocates of unlimited military spending make much of the calculation that defense outlays are now at the lowest percentage of the gross national product since 1950. But the fact remains that the United States still spends more of its limited resources on defense than any of its European allies except Portugal, which is still fighting colonial wars.

Nominally, we have rejected the long-held concept that the U.S. must act as policeman to the world. If we mean business, we should restructure our forces accordingly by reducing their size and by bringing unnecessary foreign bases home. Our nation is in the process of re-examining our vital interests and our role in the world. We have commendably made agreements with other nations which strengthen the prospects for peace, but we have not adjusted military spending to reflect these new realities. We continue accelerating the arms race in the name of achieving arms limitations. We have renounced global interventionism, but we still station one American soldier out of every four on foreign soil. We are spending increased billions in order to have weapons of the 1970s which support a strategy based on the assumptions of the 1950s.

A national consensus is forming, in my view, not to relax our defense capability but to reduce military spending to more prudent levels. This means buying only those weapons which have characteristics in line with their costs. It means cutting the fat out of our military manpower, particularly unnecessary foreign bases. So long as we maintain sufficient power to deter any potential aggressor, we can afford to re-examine other programs more critically, more creatively. In the following pages, I offer my own views on specific programs which I believe deserve our most careful consideration.

Manpower.—Well over half the defense budget goes for manpower—56 percent. The dollar costs per serviceman have nearly doubled in the past five years to a staggering $12,448 per man per year. Part of this increase can be attributed to inflation; much is the result of well-

justified pay increases, especially for men in their first two years of service. But the stark fact is that military personnel are pricing themselves out of the market. We cannot afford both large standing forces and costly new weapons.

The Armed Services Committee has already taken a major step by reducing proposed end strengths by 156,000 men, or 7 percent. The committee has also mandated reductions in the top-heavy command structure, which today has, for a 2.2 million man force, more generals, admirals, colonels, and Navy captains than we had for a 12 million man fighting force in 1945.

These reductions still do not go far enough. The technological developments of the past two decades have given an Infantry Battalion, for example, nearly three times the firepower potential of its 1951 counterpart. The fighting capabilities of the other services have also dramatically increased. So why do we still need over 2 million men and women in uniform and over 1 million civilian employees of the Department of Defense?

Our European allies are rich enough now to take on a much greater share of their own defense. Under the Guam Doctrine, our poorer allies are also supposed to do their own fighting, albeit with equipment which we provide. In both cases, therefore, the need for large standing American forces has been reduced.

I am sure that management specialists can suggest ways for utilizing military personnel more efficiently—by reducing some paperwork and overlapping functions and nonproductive personnel such as transients and personal servants. Substantial additional cuts can be made if we are willing to adjust our forces to the new diplomatic and military realities.

Overseas deployments.—One out of every four American servicemen is currently stationed overseas at one of the more than 2,000 U.S. bases and other military installations. Expenditures by or for them and their 300,000 dependents last year accounted for about half of our huge $9.5 billion balance of payments deficit. Yet when the Pentagon wants to economize, it closes domestic bases, putting 42,000 Americans out of work. In fact, by keeping the same number of men overseas, the recent dollar devaluations have cost far more than the projected dollar savings from these base closures.

Our overseas bases are a costly remnant of an outdated forward strategy. In Europe, we continue to maintain the same force levels decided on at the height of the cold war and European economic weakness. Our NATO allies spend only about half as much of their Gross National Product on defense as does the United States, and some of these countries are now reported to be reducing their own force levels because of rising costs. Since the official estimate of the cost of our NATO commitment—$17 billion per year—is more than the President has budgeted for all federal programs in natural resources and the environment, agriculture and rural development, and community development housing, surely we can afford substantial troop reductions in Europe so that we can better meet the needs of our own citizens.

The planned negotiations on mutual and balanced force reductions (MBFR) are likely to drag on a long time before any meaningful agreement results. In the meantime, I believe that initial American

withdrawals could break the logjam of distrust and open the way toward better relations between East and West.

The United States is overextended in other areas of the world as well, despite the Guam Doctrine. Why do we still need 60,000 troops in Japan and the Ryukyus? We can preserve our commitment to this strong and self-reliant country without so many U.S. forces. Why do we still need 40,000 troops in quiet Korea or 9,000 in Taiwan, a thorn in the side of China? Why should we keep 45,000 troops in Thailand or 15,000 in the Philippines, unless we are willing to be drawn into "another Vietnam" as the insurgencies in those countries grow?

While I would prefer substantial reductions in these overseas deployments, I believe it is also important to reinvolve the Congress in these determinations. To that end, I have introduced legislation which would require an annual authorization ceiling on U.S. troop deployments in peacetime for each major geographical region of the world. Such legislation would establish a regular process by which the Congress can consider Executive Branch justifications for these troop levels and then authorize appropriate levels. This proposal would in no way restrict the President's power in wartime, nor would it affect the operation of the war powers bill.

Strategic systems.—The 1972 ABM Treaty and Interim Agreement on Offensive Weapons provided a chance to halt the dangerous momentum of the arms race. The 1973 Nixon-Brezhnev summit resulted in an understanding to try to reach a permanent agreement by the end of 1974. Thus, we now have a breathing space between arms control and arms reduction; it is certainly not a time to rush headlong into new programs.

Yet the proposed defense budget adds millions for new weapons, many of them forbidden under the existing agreements. The Pentagon's justification, of course, is that we need "hedges" against the collapse of the agreements or "bargaining chips" to be "given away" in the negotiations. The history of SALT, however, shows that neither side ever "gives away" anything in which it invests large sums of money. And hedges against failure become strong incentives *for* failure. A cheaper and safer way of preserving our bargaining position is to do only sufficient research and development work to preserve the option of reacting to unforeseen developments, without going all the way into full-scale development of whole new systems.

The Armed Services Committee has already taken commendable steps in cutting funds for several of these programs. The Light Area Defense (LAD) concept had previously been rejected by the Committee, and no new developments have come forth to justify a reversal of this position. The principle of mutual vulnerability, recognized by the ABM treaty, should strengthen mutual deterrence. Further efforts to try to defend against ballistic missiles would be a multi-billion dollar mistake.

The program for the Site Defense of Minuteman (SDM) has also been reduced by the Committee to the level admitted by the Pentagon to be necessary to preserve the option of developing this system in the event of an abrogation of the ABM treaty. We do not need to pour any more money into futile attempts to protect only a few missiles when the bulk of our population and our land-based missiles are vulnerable.

The Committee made another wise decision in voting to delete funds for the strategic cruise missile, which would add another leg to our already sufficient Triad of bombers, missiles, and nuclear submarines. Although the United States reportedly proposed a mutual ban on such systems during the SALT I negotiations, the Defense Department now wants to proceed with this multi-billion dollar program as another bargaining chip for SALT II. The military requirement for such a new system remains to be demonstrated.

The Soviet Union has now apparently conducted its first successful tests of Multiple-Independently-targeted Re-entry Vehicles (MIRVs). This is neither surprising nor a cause for immediate alarm, because as long ago as 1969, Dr. John Foster, Director of Defense Research and Engineering (DDR&E), told Congress that the general opinion of the intelligence community was that the Russians would have MIRVed missiles by 1973. In fact, of course, these first tests mean that no significant numbers of missiles will be deployed before a few more years of testing and procurement have occurred.

To counter this threat as well as other Soviet advances, the United States in the past four years has spent nearly $30 billion for strategic programs, plus nearly $8 billion in research and development for strategic weapons. The request for fiscal year 1974 includes another $9.6 billion in these areas. Thus, the MIRV tests cannot be used to justify any further increases in the defense budget at this time. Perhaps the Russians are simply adding "bargaining chips" of their own.

These tests strengthen the need to conclude a permanent agreement on offensive weapons as soon as possible, before the momentum of Soviet development requires a new American response.

Trident.—The key to our strategy of deterrence is our fleet of nuclear submarines with Submarine-Launched Ballistic Missiles (SLBMs). The survival of even one Poseidon submarine, with its 160 nuclear warheads each, could inflict such devastation on an enemy population and industry that any rational planner would seriously question the wisdom of launching an attack on the United States. Our current SLBM force is invulnerable to detection and destruction, and will remain so, according to the best official estimates, at least into the 1980s.

Since there is no disagreement on the importance of SLBMs, the major issues are whether now is the time to proceed at an accelerated pace and with such great cost on the proposed program. The close division of opinion within the Armed Services Committee reflects serious doubts on these matters despite the unanimity of views on the need to preserve an invulnerable submarine force.

The threat to our existing SLBM fleet is still hypothetical. Although Soviet ASW capability is expected to improve, we have no evidence of any major breakthrough which would threaten the survivability of our fleet. As Dr. Stephen Lukasik, the Director of the Advanced Research Projects Agency (ARPA) and the man responsible for the pursuit of the most advanced ASW technology in the Department of Defense, told the Research and Development Subcommittee on May 29:

"It is unlikely that a Soviet breakthrough in ASW could negate our Polaris/Poseidon force before 1980 . . . . There is, of course, the potential for Soviet breakthroughs that could lead to deployment of an effective anti-Polaris force by the early 1980's. However, the

Poseidon, with its long strike range will increase the SSBN patrol area sufficiently to pose immense additional problems for any ASW sensor that can now be conceived."

One should note that these "immense additional problems" for a potential enemy would be compounded by the placement of the Trident I missile in existing Poseidon submarines. The 4,000 mile range of this missile would at least quadruple the ocean area of the submarines now carrying Poseidon missiles, thus further enhancing the survivability of our SLBM forces. The single most important advantage promised by the Trident system could be achieved by a decision to put the new missiles on the existing submarines.

Since the threat is still uncertain, the other major argument for replacement of the current fleet is that of aging. While the SSBNs were designed for a nominal life of 20 years, the Navy admits their utility at least for 25 years. Thus, they should be serviceable at least until the 1985–1992 period. Furthermore, the Navy admits that it is not possible to plot the overhaul cost trend versus age.

Admiral Robert Y. Kaufman, Trident Program Coordinator, told the R&D Subcommittee that "six to seven years are required to design, develop, and deploy a new SSBN in an orderly manner." We therefore have several years before it is necessary to lock into a final design on a replacement submarine for the mid-1980s and beyond.

The ideal replacement would be a submarine with several characteristics. It should have a longer-range missile, and the Trident I missile will meet that requirement. It should be less detectable, and the technology is in hand even now to reduce significantly the detectability of current submarines if we choose that course.

A replacement should also maximize our capabilities under whatever restraints are imposed by a permanent arms limitation agreement. Yet if the current numerical limitations are made permanent, the United States would be able to deploy a maximum of only 29 Trident submarines, instead of our current 41, thereby making it hypothetically easier for a hostile force to locate and destroy all SSBNs simultaneously. Instead of waiting another year for SALT II negotiations to be concluded, however, the Navy is accelerating its program, despite the admission that it will be necessary to take a good look at the Trident design after a new agreement is reached.

Instead of slowing down the program in order to have a submarine which best meets our needs for the rest of this century, the Navy chose a very costly option at an accelerated schedule. I supported the Subcommittee recommendation to return the submarine to its initial schedule, while permitting the earliest possible retrofitting of the 4,000-mile missile into Poseidon submarines. Such a revised program would not only save $885 million in funds this year, it would also preserve our bargaining position in SALT negotiations and offer the potential for quick reaction to any unforeseen threat which may develop.

My own preference would be to reduce work on the submarine even further, pending the outcome of SALT II and a clearer picture of the ASW threat. Admiral Zumwalt, while understandably opposing this alternative, nevertheless told the Committee that for $98 million this year we could preserve the option of developing a new submarine until these unknowns become known.

Nor am I persuaded that the much larger Trident design, costing five times what Polaris submarines cost and twice as much as a new version of Poseidon, is the best way to go. Time and further trade-off studies may suggest better alternatives.

An additional concern is the problem of concurrency. Too often in the past, cost overruns have resulted from proceeding with R&D and production at the same time. With each submarine costing over $1.3 billion, we cannot afford any additional—and avoidable—costs because of concurrency.

B–1 bomber.—This program is clearly in trouble. Costs are soaring to over $45 million per plane, or over $56 million if research and development costs are included. The program has slipped from its planned schedule by several months, and even more trouble may be ahead. If decisive action is not taken quickly, the Air Force may find itself without a follow-on manned bomber, or we may be able to afford only a small percentage of the estimated need.

The Armed Services Committee voted a $100 million cut in this year's request and mandated a full review of the program. I hope that this reduction will succeed in forcing the Air Force to examine seriously the adequacy of the present program and alternatives in case it fails. The Congress should not be put in the position of having to approve a costly and questionable design because no alternative systems are available.

Intercontinental missiles have greatly reduced the utility of manned strategic bombers. Planes on runways are a tempting and vulnerable target, and their slow speed, relative to missiles, makes it likely that their contribution to a nuclear war would be merely posthumous revenge. Is this capability worth over $11 billion in our scarce resources?

There may be good reasons for preserving a manned strategic bomber capability, such as to complicate the defense problems of potential enemies, if a low-cost means of accomplishing this mission can be found. Thus far, the Air Force has refused to say at what point the B–1 becomes cost-ineffective compared to other alternatives.

Present B–52 G and H models are considered viable operational systems for at least eight to ten years. Perhaps their lives can be extended even further. In any event, there is still time for adequate development of alternative bombers.

The FB–111 is a proven and effective bomber. A stretched version could be developed which would have the range to hit a high percentage of likely targets. The Air Force even admits the utility of such an aircraft as an interim alternative to a new bomber.

Perhaps the best, and least costly, alternative would be a stand-off bomber carrying missiles which could be launched against enemy targets several hundred miles away, thus negating the requirement for the special characteristics now needed to penetrate enemy defenses. Development of a fleet of such planes and missiles could save vast sums not only in procurement, but also in reducing the need for tankers.

At the least, the B–1 program should be changed from one of full scale engineering development to a prototype demonstration program with a relaxed schedule to permit work in an orderly, coordinated manner. Two air vehicles should be sufficient for such a program,

rather than the three requested by the Air Force. Additional funds could be saved by prohibiting contractor overtime or premium pay and deleting or discontinuing all subsystem and component development which is not required for prototype demonstration.

Regardless of what happens with the B–1 this year, the Air Force should initiate, either with existing funds or with perhaps a small increment of, say, $5 million, detailed studies of various alternatives to satisfy the Air Force's strategic offensive mission. In this way, the Congress and the country will have a better range of choice before any production decision is made on a new manned bomber.

F–14.—The committee, by reducing FY 1974 funds for this program by over a half-billion dollars, has expressed its indignation and impatience with the vague and indecisive pleadings of the Defense Department and the Navy on behalf of this troubled and costly fighter aircraft program. I would have preferred to terminate the program at this point, with 134 of the aircraft already under purchase order.

Continuing the F–14 procurement under a new contract, yet to be negotiated, constitutes abandonment of a solemn agreement. The Navy and the Defense Department have agreed not to enforce the original contract, which was awarded to Grumman after the firm reduced its preliminary bid by over $470 million—at a time when Grumman subcontractors were telling the prime contractor that their price estimates would be over $300 million higher. Grumman officials have denied that they "bought in" to get the contract, but the record speaks for itself to the contrary.

The F–14 is not a significant improvement on existing aircraft, and in fact, it is sharply lacking in the important mission loiter capability by comparison with the F–111B which it replaced. It is only slightly more capable overall than the F–4, but at over four times the per-plane costs.

The Navy justifies the need for the F–14 largely for protection of carrier task force, using the Phoenix missile to defend against sophisticated enemy offensive missiles. Yet in any major war with a military advanced nation, such as the Soviet Union, carriers are virtually certain to be highly vulnerable and high-value targets that could not survive intense attack, with or without the F–14. For protection of the sea lanes and in limited conflicts, the current mix of naval aircraft should be adequate for years to come. For protection of the fleet, the Phoenix missile could be conveniently adapted to an existing plane, such as the A–6, and the combination would prove more effective in terms of both cost and military utility.

Already, $3.5 billion has been spent on the F–14 program, and we will have only 134 planes to show for it. The procurement should be terminated now, precluding negotiation of a new, more favorable contract for Grumman and thus putting weapons developers and the military services on notice that Congress will not acquiesce in the financial manipulations that have characterized this program from its inception.

A–10.—The committee has already reduced the funds for this specialized close air support aircraft by $50 million, but I believe that the program should be terminated. This plane provides reduced capability compared to the A–7Ds which it is to replace, and yet the costs are almost exactly the same.

The A–7 has proven itself in combat in Southeast Asia. The Air Force A–7D was not deployed there until September, 1972, but in the ensuing months it established an excellent reputation in the Air Force for close air support and interdiction and demonstrated outstanding bombing accuracy, survivability, maintainability, and the ability to sustain a high sortie rate. Its twin, the Navy A–7E, routinely operated in interdiction missions in the high threat areas over North Vietnam for 2 years, accumulating over 8,000 sorties and with lower loss rates than all other attack aircraft. The combat effectiveness and survivbility of the A–7 is a known quantity.

Conversely, the A–10 will have essentially no interdiction capability and a questionable survivability in close air support. It is too slow an airplane to penetrate modern anti-aircraft defenses. It will not have the computer-aided bombing system of the A–7D which gives the latter plane its outstanding bombing accuracy. It must operate low and slow to match the A–7Ds close support capability, and that is not a viable attack tactic to survive against modern AAA, Strella missiles, and SAMs.

The Committee this year discovered the real cost of the A–10. Excluding the $125 million already invested in A–X R&D, there still remains $190 million to complete development of the A–10. The estimated production cost of 729 aircraft is another $2.153 billion. The average A–10 cost for this quantity, *excluding* the $125 million invested in the program to date, is $3.2 million each. If a lesser number is bought, the average price will be higher. By contrast, the A–7D flyaway cost this year is $2.9 million each, and with squadron ground support equipment added its average cost is $3.2 million. It is obvious that the A–10 has no cost advantage over the A–7D, despite previous claims that it would cost $1.4 million each.

Presently there are 3 wings of A–7Ds in the active force. The Air Force already has bought about 400 A–7Ds through FY 1973, enough to support the 3 active wings and to provide about 75 airplanes for the Air National Guard.

Currently, the Air National Guard has over 500 F–100s, dedicated to close air support. These are at least 18 years old and urgently need replacement. The total potential procurement of close support airplanes, A–7Ds and A–10s, is about 800. With 400 A–7Ds already bought, there simply isn't room in the force structure, active and reserve, for 729 new A–10 aircraft. Reduced purchases of A–10s would drive up the per-plane cost and should give the A–7 a positive cost edge over the A–10.

A better solution than proceeding with the A–10 is to spend the funds for A–7s for the Air National Guard. The Guard urgently needs 300 aircraft in the next few years to replace remaining F–100s, and the lowest-cost way to modernize the Guard, with the best airplane, is to buy A–7Ds. This step would provide a single close support airplane in the active and Guard forces, with the attendant benefits in logistics support, training, and operational doctrine should it ever be necessary to mobilize Guard squadrons to serve alongside the active forces. Regardless of the outcome of the A–10 program this year, the Air Force should develop and submit to the Committee a five-year program for modernization of the Air National Guard with A–7Ds.

The A–7D is combat tested and proven in that role, as well as being an excellent interdiction airplane. The A–10 is untested, unproven, and single-purpose; it appears too slow to survive on the modern battlefield, and will cost as much and probably more than the A–7D.

MASF for South Vietnam and Laos.—Section 701 should not even be in this bill. Military assistance to South Vietnam and Laos was covered in S. 1443, the Foreign Military Sales and Assistance Act, which passed the Senate on June 26, 1973. Section 2108 of that bill authorized sums for armaments, munitions, and war materials; and section 3109 transferred the program back to the Military Assistance Program and out of the Department of Defense.

There is no need to continue the practice of Service Funded military assistance. The MASF program was established in 1966 because, as the Armed Services Committee report said at that time, funding through the Defense Department "is desirable because parallel but separate financial and logistics systems for U.S. forces and for military assistance forces are too cumbersome, time consuming, and inefficient in a combat zone." Since those financial and logistics pipelines are no longer supporting U.S. forces in Vietnam and Laos, this justification no longer applies.

Funds for assistance to Laos and Vietnam should be reduced even further than the $952 million voted by the committee. A figure of no more than $500 million would be completely adequate. If any change occurs in the military situation, of course, additional funds could be requested from the Congress. But unless such a reduction is made, the Defense Department may funnel more unnecessary and unusuable items into those countries.

As of the end of the fiscal year on June 30, 1973, there were still substantial sums unobligated ($160–200 million) and unexpended ($1.2 billion) from prior year funds. Furthermore, it is hard to believe that these nations, in a time of relative peace, require more money than they did at the height of the combat in 1967 and 1968. Yet in those years, MASF amounted to only $1.26 billion and $1.135 billion, respectively, compared to the Pentagon request of $1.185 for FY 1974.

We have already given South Vietnam vast amounts of aid including more aircraft than they will be able to use for a substantial period of time. Under the January cease-fire agreement, we are permitted to replace armaments, munitions, and war material. If we are to abide fully by this agreement, I see no reason why we should also pay subsistence and other allowances to South Vietnamese forces, or why we should pay for Vietnamese supply support, transportation, or purchase of petroleum, oil, and lubricants (POL) with U.S. dollars. It is galling to me and, I believe, to U.S. taxpayers to read news reports saying that, because of U.S. aid, the South Vietnamese are having no trouble obtaining such items as gasoline and scrap steel, which are in such short supply in our own country.

A reduction in MASF to $500 million would permit replacement of materials without at the same time giving these nations excess items.

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There are other programs which could prudently be reduced or terminated without endangering our national security. A new nuclear carrier, for example, is unnecessary. The SAM–D program is too

costly for our own forces and unlikely to be purchased by our European allies who have the greatest need for improved air defense. The Airborne Warning and Control System (AWACS) is too costly a response to the minimal threat from Soviet bombers. And there are others programs in which rising costs or poor management justify budgetary euthanasia.

It is time to get military spending out of the secret sanctuary of "national security" and into the overall context of our national priorities. What profits a nation to have the mightiest, costliest military machine in history if its society is permitted to deteriorate within?

We all know the obstacles that stand in the way of sensible, rational consideration of defense needs—the dinning propaganda from the Pentagon that we are falling behind our potential enemies, the secrecy and complexity of modern weapon systems, the vested interests within the Pentagon and in areas where defense contractors are located, and the tradition of untouchability that military expenditures have so long enjoyed.

Somehow we must cut through these roadblocks to achieve a defense capability that is muscular, adaptable and realistic. This means relentlessly eliminating the fat, the duplications, the concurrencies and the perpetual cost-overruns.

In the broader context, as I have suggested, our national security involves more than armaments; it involves the health and mental health of the people, the vitality of the economy, the preservation of our freedoms and the removal of massive inequities that deny quality living to large segments of our population.

I have no doubt in my own mind that we can have a defense capability second to none without sacrificing the human values in our society that we theoretically fight wars to preserve. But we cannot attain either the good life or true security if we continue blindly to pour billions into military programs that can't be justified while the critical internal needs of our country go unmet.

HAROLD E. HUGHES.

INDIVIDUAL VIEWS OF SENATOR GOLDWATER ON THE B–1 PROGRAM

The action taken by the committee in recommending a reduction of the funds requested for the B–1 is one I take strong exception to. Not only do I object to reducing the program by $100 million, but I also object to the arbitrary way in which the reduction was made. The reduced funding is in no way related to any recommended change of work nor can it be said that it will in any way reduce the risk of future difficulty the B–1 program might encounter.

In my opinion the $100 million reduction can only be termed punitive. The committee report states, in referring to the reduction it made, "it is an expression by the committee with its dissatisfaction and serious concern regarding the management of the program."

Let me assure my colleagues of the committee that a $100 million reduction is not going to simplify or make easier the Air Force's management of this program. It is not going to help put the program "back on track." To the contrary, it could well make management of the program more complex. If the committee has a genuine concern about the program it is certainly expressing that concern in a most unusual manner.

Let me stress that I do not advocate a pat on the back for the Air Force for the way it has managed the program to date. To the contrary, when Secretary McLucas appeared before the R&D Subcommittee on July 27, 1973, I stated I was especially concerned over the inability of the Air Force to stay within its own cost and time schedules for the B–1 program. I further advised the Secretary it was my opinion that if the B–1 encountered further difficulties in meeting its cost and assembly schedules it could well mean the end of the program and, therefore, I wanted to be assured to the maximum extent possible that the new schedule was attainable.

On August 22, 1973, Secretary McLucas wrote to Chairman Stennis about the B–1 program and I quote, in part, from that letter:

> Concerning Senator Goldwater's request, I want to assure you that we have examined carefully and in great detail the factors which led to the behind schedule condition. From this examination, we structured a program adjustment, which in our judgment provides the proper balance between cost, schedule, and risk. Within our ability to forecast future events, we are confident that the program can be accomplished within the revised schedule and cost estimates.
>
> At this time, there are no known program difficulties which would provide a valid basis to further extend the schedule. However, as Senator Goldwater pointed out in his statement, the B–1 is a development program and as such there are many unknowns still facing us in the building of this first

aircraft. We have provided some margin in terms of cost and schedule to accommodate both anticipated difficulties where they can be perceived and, hopefully, "unknown unknowns" should we encounter them. This margin appears reasonable and I am guardedly optimistic that it will prove sufficient.

What more assurance than that can we expect or require?

Some suggest that the B–1 is approaching, if it hasn't reached already, a price tag we cannot afford. Maybe there is an upper limit in cost beyond which we cannot go. I'm not sure. However, when it comes to the security of our country we had better be careful about putting a limit on how much we are willing to pay. It seems to me we must pay whatever is required to maintain that security. Otherwise, we have no security at all.

We should, however, be honest with ourselves about these expensive defense programs. In this case, if the B–1 program is scrapped it should be because it is no longer required, not because we convince ourselves we cannot "afford" it.

Now I would like to discuss the estimated cost increase associated with the restructured B–1 program. Simply stated, because assembly of the three developmental B–1s has been extended, the cost of the research and development program will increase by an estimated $78.4 million to $2,787.5 million, or about a three percent increase. Because the production decision is also delayed from 1975 to 1976 this increases the estimated production cost of 241 aircraft by $265.7 million to $10,884.2 million. Even so, that is only a 2.5 percent increase.

When we examine the total program cost, R&D plus production, we find the total estimated increase is only 2.6 percent. I would say that is pretty good management of a research and development program.

Nevertheless, the production unit price is now estimated at $45.2 million and the program unit price is estimated at $56.7 million and I would certainly agree that is a lot on money. However, I am not sure everyone is aware that these costs are in estimated "then-year" dollars, or about 1980, because, if we could buy a B–1 today the production unit price in "now-year" dollars would be about $38 million. The difference is the anticipated impact of inflation on our dollar.

That is still expensive, but by comparison the Air Force estimates that six Boeing 747 aircraft it is now buying to be equipped as airborne command posts will cost about $28 million each. By the time they have the required equipment installed so that each is a fully integrated system the production unit cost will be over $46 million. So when the cost of the B–1 is stated in "now-year" dollars and is compared to other systems we are buying today I do not feel its cost can be termed excessive.

There is an irony that arises as the result of the committee's action. The committee was concerned, in part, because the Air Force's decision to restructure the program would add another $1.1 million to the cost of each B–1 aircraft. I can understand the committee's concern over the increasing cost because I also share that concern as I indicated earlier I had expressed to Secretary McLucas. Yet the very action the committee took, if approved by the Congress, is estimated

to add another $1.6 million to the cost of each B–1 because of the requirement to further extend the program.

How, on one hand, can the committee in good conscience criticize the Air Force for cost increases to the B–1 program, and then, on the other hand, take an action that will cause an even larger cost increase?

Subsequent to the committee's action, I visited Rockwell International for a first-hand look at the B–1 as it is being assembled. I urge all of my colleagues to do this because I know it will provide them a much better insight and appreciation for the scope of this program. It is my judgment that everyone involved with the program is well aware of the past difficulties and is acutely aware of the importance of making the revised schedule. It is inevitable that problems will be encountered even with the revised program but I do not believe they will be of the magnitude of those just past. It does seem to me that the discovery curve has been crested and, while completing the first B–1 still won't be easy, it should be a little more down hill than in the past.

Fiscal year 1974 is especially important because assembly of the first B–1 will be completed and it will be readied to the point of first flight. With some breaks, first flight could come in fiscal year 1974, but if the $100 million reduction is sustained by the Congress, final assembly and first flight, in addition to numerous other milestones, will be further delayed. The Air Force is just now completing its own recent schedule change and to force a further change on the program; in my opinion, will only cause needless shifting and readjusting of the program which will be very costly.